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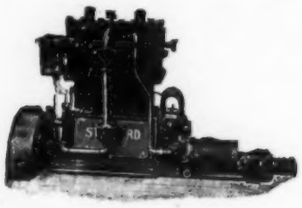

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FOR NOVEMBER, 1918

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Bayside Yachtsmen Meet

THE Board of Governors of the Bayside Yacht Club has elected a Nominating Committee, consisting of Robert B. Everett, John P. Floan, and Fred L. Green. They will receive suggestions as to candidates for the offices now held by the following: Commodore, William R. Teller; Vice Commodore, William C. Poertner; Rear Commodore, David H. Knott; Measurer, Joseph E. Hill; Secretary, Walter J. Fahy; Treasurer, R. J. Hayward. The annual meeting will be held on November 9.

The club was officially declared out of commission for the season October 12th. W. T. Haskell, Chairman of the Regatta Committee, announced the prize winners of the four classes of racing yachts during the season.

Where to Get a Real Life Preserver

THE International Life Suit Corporation, formerly the selling company for the Ever-Warm Safety-Suit, the *real* life preserver, which is put on in less than a minute, keeps the wearer afloat indefinitely and protects absolutely from exposure, has been taken over by the National Life Preserver Company, the parent company, owners of all the patents and now, "sole owners, manufacturers and distributors" of the Ever-Warm Safety-Suit.

The offices remain unchanged, Suite 1031, 11 Broadway, New York City. The officers of the National Life Preserver Company are: Mr. W. N. Hanson, President; Mr. O. A. Youngren, Vice-President and General Manager (also the inventor); Mr. James A. Watt, Secretary.

Demonstrations of the Ever-Warm Safety-Suit in the water are given in the basin at Pier A, Battery Park, near the Aquarium, every Wednesday afternoon at 2 o'clock. Prospective voyagers, naval and army officers, boat owners, navigators and seamen are drawn to witness these demonstrations for repeated proof of the success of this great life saving suit.

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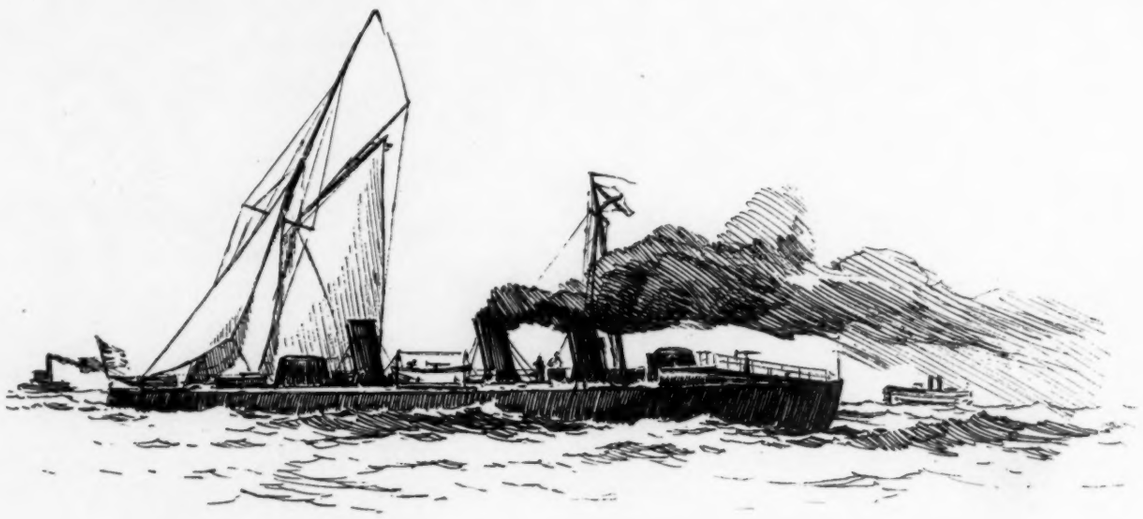

THE sport of yachting has taken a back seat while the war is on, for yachtsmen everywhere were quick to join the colors and help to throttle the Hun. This is why we show a craft of war in the foreground of the picture; the dawn of peace though, and recreation afloat is already tinting the sky of a better day, and while much fighting is yet to be done, the sport-of-sports will very soon come back to grow into a bigger sport than ever before. The battering which many converted yachts have received in patrol and other war service will necessitate the building of a new, and a bigger, fleet of pleasure craft in the very near future for sport of yachting is coming back. It has earned its "Y."

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YACHTING

VOLUME XXIV, NUMBER V NOVEMBER, 1918 25 Cents a Copy $2.50 a Year

David and Goliath

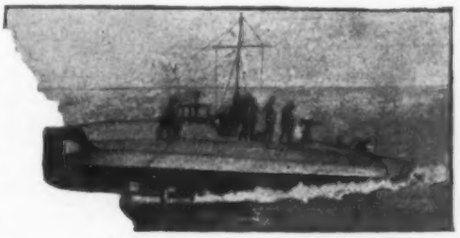
How Italian Motor Boat Dwarfs Sunk the Austrian Battleship Giants

By HECTOR C. BYWATER

SOME thirty years ago, when France and England were not such good friends as they are to-day, and when the former was straining every nerve to create a powerful battle fleet, a number of thoughtful officers of her Navy broke away from the orthodox theories of relative strength and propounded a new doctrine. France, they maintained, was pursuing a false policy in wasting her none too abundant cash on huge ironclads. Build as she might, she could never hope to overtake England, which was infinitely richer both in money and resources for the production of ships. France, therefore, would be well advised to abandon this hopeless competition and seek a cheaper method of naval defence. The Jeune Ecole, as this particular school of thought was styled, urged the construction of many small and cheap fighting ships instead of a few large and costly ones. Their argument was that a hundred fast torpedo boats would constitute a greater menace to England than two or three squadrons of ironclads, and could be built much more cheaply.

At that date the big ship's means of defence against torpedo attack was very limited. The quickfirer was in the experimental stage, and—in theory at least—a great ironclad attacked by half-a-dozen torpedo boats must inevitably be disabled or sunk. It was not surprising, therefore, that the ideas of the Jeune Ecole should have found widespread acceptance, eventually governing French naval policy for a considerable period.

THE construction of battleships was almost completely abandoned, their place being taken by fast ocean cruisers—designed for commerce raiding—and swarms of "torpilleurs de haute mer." For many years no one seems to have detected the fatal error underlying the new doctrine. The torpedo boat of those days was a fair-weather craft, capable of high speed in smooth water but unable to make anything like her designed velocity in a seaway. In consequence of the small coal supply, her radius of action was very circumscribed, while the cramped quarters made life intolerable for the crew. At last, after ten years of ascendancy, the



The launching of an Italian motor torpedo boat

Jeune Ecole fell into discredit, and France reverted to her old policy of constructing capital ships to act as the backbone of her fleet. Curiously enough, the present war, though it has undoubtedly reaffirmed the orthodox principles of sea power in many respects, has shown also that great results may, on occasion, be achieved with insignificant means. At first it looked as if the submarine were destined to revive the opinions of Admiral Aube and his fellow doctrinaires in an aggravated form. When the small coastal submarine U9 succeeded in destroying at one blow the three "Cressy" cruisers, aggregating 36,000 tons, Germany at once jumped to the conclusion that the U boat was master of the sea, and revised her building policy accordingly. But subsequent events have not confirmed that view, and to-day the submarine, notwithstanding its admitted powers of defence and aggression, occupies only a humble place in the naval hierarchy.

THE modern Jeune Ecole—for it still exists and even flourishes—is clearly undecided whether to put the submarine, the high-speed motor torpedo craft, or the seaplane at the head of its programme. Each in turn has been enthusiastically "boosted," but, for the moment, thanks to recent events, the motor boat stands first in favor. That practically all the belligerent navies now possess large flotillas of motor torpedo boats is no longer a secret. As for the British Navy, the official narrative of the blocking raids on the Belgian coast repeatedly mentions the excellent work of these little vessels, which must not be confused with the "M.L.s"—quite a different type. During the attack on Zeebrugge, one of the motor T.B.s is reported to have torpedoed a German destroyer; but, with this exception, there is no official record of our vessels of this type having been in action against enemy surface ships. Italy adopted the motor torpedo boat early in the war, finding in invaluable for the patrol of her long and exposed seaboard in the Adriatic. And on at least three occasions Italian boats of this description have done the Austrians sore mischief. When the naval history of the war comes to be written, there will be no page more glorious than that which records the achievements of such men as Pellegrini and Rizzo, both of whom have won world-wide fame in command of tiny motor boats.

THE world has heard so much of the wonderful doings of Germany's U boats, that certain credulous people believe them capable of anything. It is well, therefore, to note the fact that on no occasion has a German submarine succeeded in forcing a fortified harbor. They have made many—a great many—attempts to do this, but always without success. There are no harbors in the world more strongly defended than Pola and Trieste, yet Italian surface craft have penetrated into both a number of times; and twice at, least, the successful attack was made by motor boats. One night last December, a motor T.B., piloted by Capt. Rizzo, crept into Trieste past the frowning batteries, got through minefields and boom, reached the inner anchorage, and there torpedoed the battleship "Wien," which sank immediately. The alarm being given, Rizzo made good his retreat, in spite of a tremendous fire from the discomfited Austrians. Five months later an even more remarkable exploit was performed by Capt. Pellegrini, who set out with a special type of motor boat to attack the enemy's Dreadnoughts at Pola. The enterprise must have seemed desperate, if not hopeless, for, since the Trieste affair, the enemy was known to have strengthened his defences, and at Pola a double boom had been placed athwart the fairway. Nothing daunted, Pellegrini took in his boat un-

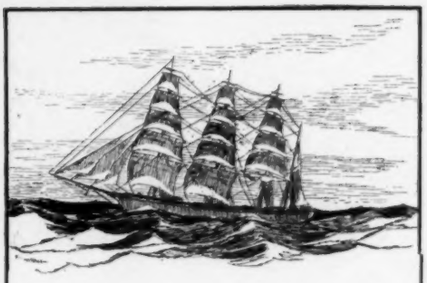
discovered, and contrived to negotiate the boom successfully. (In the official version she was not inaptly termed a "marine tank"). Finally, he got right among the Dreadnoughts, and sent two torpedoes at close range into the "Viribus Unites," which is believed to have sunk. Unfortunately, his retreat being cut off, he was compelled to surrender, but not before he had sent up two rockets to announce the success of the attack to his comrades outside.

THE third of these amazing mosquito attacks was perhaps the most audacious of all, as it was certainly the most fruitful in result. Shortly before dawn on 10th June, Capt. Rizzo, of Trieste fame, was cruising with two motor torpedo boats near the Dalmatian coast, when he sighted smoke to the northward, and, cautiously approaching, soon found that he had to deal with a hostile squadron consisting of two Dreadnoughts, screened by ten destroyers. Although the Italian boats had not been sighted, owing to their diminutive size and low freeboard, Capt. Rizzo had to decide instantly on what course to take. Each boat carried two torpedoes and a few depth charges, but no other weapons. "There were three courses open," he said in his report later on. "We could have crept away unseen, and so missed the chance of a lifetime. We could have fired our torpedoes outside the ring of escorting destroyers at a range of 500 yards, which would have meant that a small error in aiming would lose us the battleships. And the third course was to slip in between the destroyers into the midst of the fleet, and make sure of the mark at close range, though our chances of getting away again after firing seemed small." Needless to say, he chose the third course, and his daring was brilliantly rewarded.

WITH his own boat leading, he made straight for the enemy, going slow to reduce the noise of the engines and the size of the wash, and arrived immediately ahead of the third destroyer in the screen before he was discovered. Alarm bells rang and whistles blew, but Rizzo put on speed and raced for the leading battleship until he was only 200 yards away and right on her beam. At this moment he let go both torpedoes, the first striking fairly between the funnels, and the second further astern. A moment later the second motor boat let drive at battleship No. 2; the first torpedo missed, but the second got home. The two little craft were now hemmed in by foes thirsting for their destruction, but the Austrians seemed to have lost their heads completely, firing wildly and attempting to ram the motor boats. At a critical moment, when a destroyer was bearing down upon him at full speed, Capt. Rizzo dropped a depth charge and blew her fore-part away. This, apparently, was the last straw, for the pursuit was broken off, and he and his consort drew off at a good speed without being molested further. In due course it transpired that both the Austrian battleships ("Szent Istvan" and another of the same class, either the "Tegetthoff" or "Prinz Eugen") had foundered. As the Austrian Navy possessed only four Dreadnoughts in all, and one of these had been sunk by Pellegrini a month beforehand, Rizzo's exploit may be said to have broken the back of Austria's maritime strength and altered the whole balance of naval power in the Adriatic.

IT would, of course, be most interesting to furnish details of the boats which accomplished this deed, but, for obvious reasons, they must be withheld for the time being. It may be said, however, that they are of very small dimensions and their speed is not remarkably high. A correspondent who saw them on their return wrote: "The Austrian Goliaths fell to the tiniest Davids in the Italian Fleet. These great 21,000-ton ships, each with her dozen 12-in. guns, were sunk by two cockleshells of patrol boats, hardly more than a motor with some frail woodwork round it, the two of them manned by a mere 18 men. They could have been dropped down one of the funnels of the Dreadnoughts they torpedoed." Without detracting in any way from the credit due to these gallant Italian seamen, it is obvious that such an attack could not have succeeded against a vigilant and alert enemy. Gross carelessness on the part of the Austrians has cost them the best part of their fleet, but because three of their Dreadnoughts have been sunk by tiny torpedo craft, it does not follow that the "motor mosquito" has replaced the Dreadnought as the supreme arbiter of battles. At the same time, these Italian successes do suggest that a promising future may lie before the motor T.B. or T.B.D., chiefly in the direction of coast defence, though in favorable weather the smallest of them may operate a hundred miles or more from its base. Not until the full official records are available shall we know what an important part such craft have played in the war at sea.

Courtesy Motor Ship and Motor Boat.



The Western Ocean

OLD Viking prows of riven pine
Fared far beyond your eastern shore;
Daring men of that ancient time
Ventured their craft on your virgin brine,
By lure of gold, and of fight, and wine,
And by help of the great god Thor.

And many a blustery salt born breeze,
Drove scampering galleys o'er your breast;
Phoenicians, far from Hercules,
And Northmen, from the narrow seas:
Never were bolder men than these
On the waters of the west.

Your waves have swept the palm fringed shores,
While slavers anchored in the bights;
You have known the wrack of a thousand wars,
From the Faroe Isles to the blue Azores;
And you stem your tide 'gainst the river bores
Through the age long days and nights.

Steadfast in calm or storm blown rime;
Flanked by therestless crowded lands,
From frozen pole to sweltering clime
You hold your realm, immense, sublime,
The buffer ocean of all time
That o'er Atlantis stands.

Great highway of our hopes; our fears;
That led the old world to the new.
Mother of all the sea careers,
In your dread wrath, when shipwreck nears,
The blackened sin spent soul appears
Upon its knees to you.

FELIX RIESENBERG.

Sailing the Bayside Star and Bee Classes

NOTWITHSTANDING war conditions, the older and younger members of the Bayside Y. C., Bayside, L. I., have filled in for racing crews so that yachting activities might be supported, and on every Saturday from Decoration Day to September 14th races have been held at this club and on every regatta day there have been no less than twelve boats entered.

As in 1917, the racing skippers gave the money usually spent for prizes to the Red Cross, accepting only winners' certificates as a reward.

Mr. George Abbott's **Aria** has been the most successful boat in the racing of the Star Class on Long Island Sound. This year, in the championship races of the Bayside Y. C. this craft held second place, being beaten only one point by Mr. William L. Inslee's **Shadow**, which won thirty-nine points to Mr. Abbott's thirty-eight.

Mrs. Abbott, who sailed **Aria** in the ladies' race, and, by the way it was at this race the accompanying pictures were taken, is a racing skipper of rare ability and is in no sense a fair weather sailor having put **Aria** through many a blow.

Miss Ann Farrell at tiller of **Maybe**

Mrs. George Abbott who sailed **Aria** is an experienced skipper

Levick photos

MAYBE of the Bayside Bee Class is owned by Mr. George Hopewell, who has been a racing skipper in the Bayside Yacht Club fleet for many years. In the championship series of seven races at the Bayside Yacht Club this summer, **Maybe** sailed by Mr. Hopewell won first place with twenty-eight points, beating his nearest competitor by eleven points. Miss Ann Farrell who sailed **Maybe** in the ladies' race, is a comparative novice in the racing game, but she holds promise of doing well in the future as she has the qualities that make a sailor.

In the Bayside Bird Class for the championship series of the season first place was won by Mr. John Johns sailing **Teaser** with twenty-five points while Com. William R. Teller and Mr. Charles L. Willard tied for second place with nineteen points each.

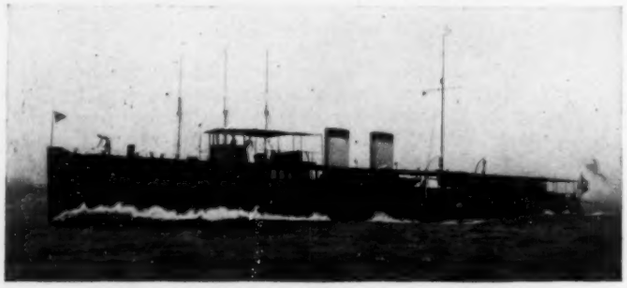
In the Bayside Butterfly Class Mr. Arthur Knapp, Jr., won first with fourteen points with Mr. Robert Everett, Jr., second, with twelve points.

PEERLESS AMERICA'S FLE

THESE furnishings have gone the way of many others since the conversion of our great yacht fleet into vessels of war, because vessels of war require little charm and great utility. They have gone the way of the dusty store room and the auction block, for being part of the scheme of decoration aboard this particular craft they are of little use elsewhere.

DIFFERENT in type, build and ferent in speed, power and fuel yachts of America have gone to everyone of them was built solely fulfil the fancy of its owner, yet naval craft, and helping make safe

WINCHESTER, built for Mr. Peter W. Rouse in 1916 was one of the fastest yachts in America. Her plans were prepared by Messrs. Cox and Stevens and she was built by the Bath Iron Works Ltd., Bath, Me. When the United States entered the Great War, Winchester was converted for naval use, and some day when the censor's curtain is lifted all men will applaud the work of this, and all, American yachts and yachtsmen for their help in winning the war.



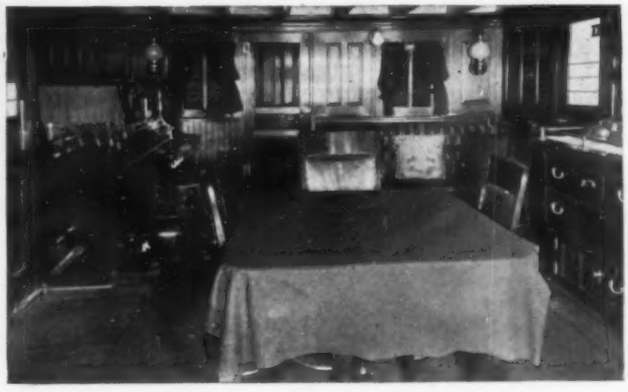
THERE is no use talking; naval architects know how to harmoniously treat the interior of the vessels they design. From the fore peak to the end of the lazarette, they combine comfort and utility and withal create apartments splendid to look upon and good to live in.

CRAFT OF YACHTING ETS

design, different in rig, dif- capacity, the steam and power war and despite the fact that and only for pleasure craft, and to they are protecting the seas as the world for democracy.

SMART in her glistening black topsides, teakwood houses, and varnished yards, the bark rigged auxiliary yacht **Aloha**, built for Mr. Arthur Curtiss James, from designs by Tams, Lemoine and Crane, is a handsome craft. She is a big vessel too: 218 feet long with a breadth of beam of 35 feet and quite able to voyage on a world-wide cruise, blow high or low.

IN some of the smaller yachts the dining saloon serves also as a living room. The piano and Victrola have a place here that cannot be denied them, for music is needed aboard the yacht as well as in the house ashore.



THE pantry-man takes particular pride in his clinking glassware and delicate china. Hooks for the cups are provided over head that allow them to swing on their handles in response to the yacht's roll and therefore quite safe from breakage. Tumblers and glasses are closeted in holed shelves that prevent damage, and plates are stored in squared compartments where, roll as the vessel may, they cannot be broken.

Laying the smoke screen

The M.L.s at Ostend

In Which some of the Exploits of these War Tried and Tested Elco Built and Standard Powered 85 Footers are Narrated

By Lieut. GORDON S. MAXWELL, R. N. V. R.

Illustrated by Lieut. DONALD MAXWELL, R. N. V. R.

AT the same time as the operations at Zeebrugge were in progress another naval force was attacking Ostend with the intention of blocking the harbor entrance with the old cement-laden cruisers Brilliant and Sirius, and although these blockships were not destined to be so successful as those at Zeebrugge, the M.L.s. in this action carried out their part of the programme as efficiently as did those farther up the coast.

To describe the smoke screen made by the M.L.s. would be repetition, for it was similar in working to that put up at Zeebrugge. The operations at Ostend were under the command of Commodore Herbert Lynes, but the organization of the M.L. flotillas at both actions was the work of Captain (then Commander) Hamilton Benn, D.S.O., R.N.V.R., who personally led the M.L.s. into action on each occasion.

Although the blockships were not successful in reaching their objective on account of unforeseen conditions which cropped up at the last moment, the work of rescuing their crews was carried out by the M.L.s. under conditions which, if not quite so difficult as those at Zeebrugge on account of there being no Mole to negotiate, were at least dangerous enough, for here the full attention of the shore batteries, undetracted by any landing party, was directed fully on to the blockships and the accompanying M.L.s. As a matter of fact opinions differ as to whether Zeebrugge or Ostend was the most difficult to attack, for although the Mole at the former presents an obstacle, and one dangerous to overcome, it at least stands up high out of the water over a mile in length, and is therefore a good mark at night, while the piers at the latter place are comparatively short and low, with a background of houses close behind; the water is very shallow with the Stroom Bank a mile from the shore and the entrance to the channel is at an acute angle with the shore line.

With a pluck which everyone admires Captain Hamilton Benn selected the most dangerous work for himself, that of following the blockships into harbor and rescuing the crews. The other M.L. which accompanied him on this work was that under Lieut.-Commander K. R. Hoare. Lieut. L. S. Kirkwood was the Number One on Captain Benn's boat, while Lieut. A. G. Bagot occupied a similar position on the second rescue M.L.

The failure of the blockships to find the narrow entrance between the piers on the night of April 22nd was due to the Germans having shifted the Stroom Bank buoy some two thousand yards to the eastward, and shortly before they arrived the wind, which until then had been N., shifted to the S.W. carrying the smoke screen across the mouth of the harbor and blotting it from view, at the same time exposing the blockships and some of the M.L.s. to the shore batteries. When Brilliant and Sirius arrived at the Stroom Bank buoy they were followed in by M.L. 283 (Lieut.-Commander Hoare) close astern of Sirius, and M.L. 532 (Captain Hamilton Benn) on his port quarter. It was originally intended that the rescue work should be done by these two M.L.s. alone, but Lieut. R. Bourke (M.L. 276) asked and obtained permission to back them up, a fortunate arrangement as it turned out.

When about a mile from the shore searchlights picked up the approaching ships, and the batteries concentrated on them; one in particular, to the eastward, was very vigorous. M.L. 532 therefore put on speed and went ahead of the two large ships, making smoke, which screened them for a time, returning to take station on Sirius when this vessel was close in to the shore. Captain Benn now observed that a dense volume of smoke was issuing from the after-part of Sirius, and she stopped almost immediately, and M.L. 283 went alongside under heavy fire to take off the crew. Nothing could be seen of Brilliant owing to the smoke from the other blockship, which shrouded everything like a black pall. Captain Benn therefore determined to go through the smoke after Brilliant, but while still enveloped in its density his M.L. came bow on to the port side of Brilliant, which had run aground and swung broadside-on, an action which was expedited by the nose of Sirius, which hit her on the port quarter.

The bows of Captain Benn's M.L. were completely smashed by the impact as far as the forward bulkhead, while both engines were shifted on their beds and the exhaust pipes broken, filling the engine room with

fumes. The boat was therefore useless for rescue work, in fact it was more than doubtful whether she would founder or drift on to the beach. However she kept afloat and, thanks to the efforts of the engineers, C.M.M. Culverwell and C.M.M. Park, and later of Lieut. Kirkwood, who all in turn were gassed and became insensible, one engine was started with great difficulty and kept running. The vessel made her way, at a crawling pace almost, out to the Stroom Bank where, in response to distress signals, another M.L. came to her assistance and towed her to Dunkirk.

Meanwhile the other two rescue M.L.s. had been busy at their strenuous and dangerous work in the dense smoke, for not only was our own smoke over everything but the Germans had apparently put up a counter smoke screen over the harbor mouth, which fact, combined with the shifted buoy, made the finding of the pier-heads almost impossible before the blockships grounded in the shallow water by the beach. A raking fire was kept up on both vessels the whole time, and Sirius was badly holed quite early and began to settle down. Before long both blockships had been hit repeatedly, but though badly damaged they returned the enemy's fire fiercely, the gunners continuing to serve their guns till the last. Star shells lit up the scene, as far as the smoke would permit, at frequent intervals, and "tracers" and "flaming onions" or strings of small star shells, went whizzing past. As soon as the blockships had grounded Lieut.-Commander Hoare closed Sirius—no easy task in the dense "fog" and hail of shells which were pouring around her. He found a whaler in the falls full of men; this could not to be launched as it had been badly holed, but the occupants were soon transferred to the M.L., which stood off while the captain and his assistants fired the charges which blew the bottom out of the ship. Lieut.-Commander Hoare then closed Sirius once more and took off the remainder of those abroad, and on the way came across the whaler of Brilliant, full of men, but badly holed and in a sinking condition. He stopped to rescue these before proceeding to complete his work alongside Sirius. This M.L. had now some seventy-five men aboard, and seeing that the other boat was closing Brilliant they put out to sea, subsequently landing all their "passengers" in safety at Dunkirk.

Lieut. R. Bourke, with whom was Sub-Lieut. Young, in M.L. 276, was doing equally good work alongside Brilliant. In the dense smoke they missed the whaler which had already been launched, but closed the blockship and took off the captain and thirty-five men who were still aboard. In addition to this Lieut. Bourke went to the assistance of Captain Benn's M.L. when it was in danger of foundering, and towed it into safety.

At the second, and more successful attempt to block Ostend harbor on the night of May 9-10 the M.L.s. were again literally to the fore, when they were once more under the command of Captain Hamilton Benn, who led us to the attack. Honors on this occasion are due to M.L. 254, commanded by Lieut. G. H. Drummond, with Lieut. Gordon Ross as his Number One. They followed Vindictive into harbor and under a searching fire rescued the majority of the crew. Before entering the harbor Lieut. Drummond was wounded three times, but with great pluck navigated the vessel in alongside Vindictive, brought her out with the rescued men and stuck to his post on the bridge till they sighted Warwick. In this he was ably assisted by Lieut. Ross till the latter was unfortunately struck by a shell and killed outright. Of the crew one man was killed and one wounded, which, seeing the very hazardous nature of their successful work, is a wonderfully small casualty list. The M.L. itself was badly battered and only managed to reach Warwick in a sinking condition. It was found necessary to abandon her and the Admiral gave orders for the gallant little boat to be sunk by gunfire to avoid any possibility of her falling into the hands of the enemy before she took her final plunge.

Lieut. Ross died in a way which I feel sure he would have chosen, for he was by nature one of the most glad-hearted men I have ever met and always ready to take his share in any adventure. He was the first Canadian to join the R.N.A.S., which he did early in 1915, subsequently transferring to the R.N.V.R. His cheery personality will be greatly missed in the Base.

Lieut. Bourke was again to the front at this action, entering the enemy harbor and picking up from the water an officer and three men from Vindictive. His M.L. was subjected to heavy fire during this time, part of his mast being shot away and a shell going right through his dinghy. It was found that three out of the four rescued men were wounded and these Lieut. Bourke subsequently transferred to a monitor, as he found that owing to damage to his engines he was unable to proceed under his own power and had to be taken in tow by another M.L.

The escape of the M.L. under Lieut.-Commander R. Saunders deserves more than a passing word, for it was certainly one of the most thrilling during two actions filled with thrilling escapes. As his launch was approaching Ostend piers she suddenly emerged from the smoke screen to find herself almost on the beach, not more than two hundred yards away. By the houses on the front Lieut.-Commander Saunders knew he was to the westward of the piers and turned to make for them at full speed, but it was too late to escape attentions from the shore. Up went a succession of star shells, and a hail of bullets poured on him from machine guns and clattered on to the deck. One man standing just behind the C.O. was killed instantly, but the rest of those on board seemed to bear charmed lives. The glass of the telegraphs on which Lieut.-Commander Saunders' hands were resting was shattered by a bullet, but he was untouched; the coxswain also escaped without a scratch. Lieut. Brayfield was slightly wounded in the leg, but he had a truly marvellous escape, a bullet actually passing in and out again of the crown of his steel shrapnel helmet without touching his head. The detonator box in the chart-house also had a bullet through it, but without hitting a detonator. Escapes from death literally by fractions of inches these! No one else was hit before the boat managed to get into the smoke again; but the bullet-riddled hull tells the story of a wonderful escape.

The second operation against Ostend differed in some details from the first, the main part of which was a very heavy bombardment to which the inshore monitors were subjected on the latter occasion, for some two hundred large shells were reported as having been fired at them during the action.

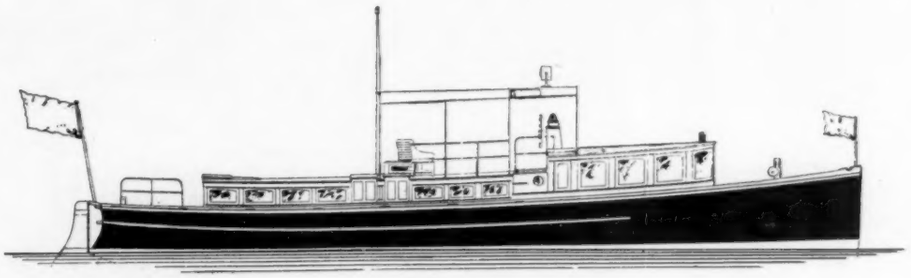
Of this part of the "stunt" I can speak from personal experience, for my own boat being disabled I asked and obtained permission to go as spare officer on the M.L.

(Continued on page 195)

Thru the darkness, the smoke and under constant fire from the shore batteries the M. L.s piloted the way into the harbour entrance at Ostend for the war-scarred cruiser *Vindictive*

For Government Service

Twelve 65 Footers With a Speed of 14 Miles an Hour



AT Stamford, Conn., the Luders Marine Construction Company recently completed for the Coast Artillery Branch of our Army twelve so-called inspection and despatch cruisers which are to be used in adjacent waters to a number of our Atlantic and Pacific coast forts.

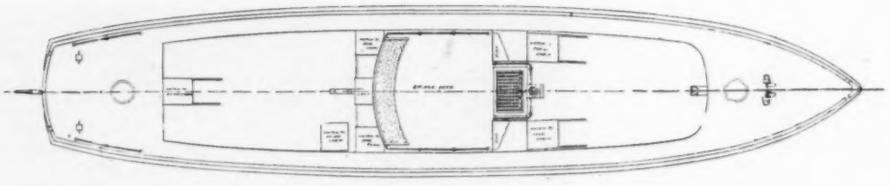
Not unlike in design many of the peace time cruisers created from designs prepared by Mr. Alfred Luders, these craft promise in every way to perform efficiently and creditably.

Looking backward to the earliest days of the motor boat, one sees distinctly a little 18 ft. runabout powered with a Mohler & De Gress 12 h. p. motor—La Petite, her name was—one of Mr. Luders' first boats.

In line and curve each craft since La Petite's building Luders boats have improved, each a development, and a better one, from its predecessor—but all of them real boats.

The Cheseboroughs of Northport, L. I., have owned and still own Luders craft, Sir Charles Ross's Pattina is a Luders boat. To run the gamut of the names of yachtsmen who have built cruisers, and runabouts at this Stamford boat-building yard is to read a list of prominent American yachtsmen, and a long one.

Luders built one of the first government submarine chasers, a 65 footer, Van Blerck powered, and before the war, and since have been building, and building rapidly and satisfactorily, motor craft for the most exacting of all customers, the great government of the United States.



THE deck plan shows well placed houses and a centrally located bridge deck from which the craft is handled. Below are quarters, forward, for the crew, while accommodations, including a lounging room in the forward house, for the officers are aft.

The Lure of Shooting at the Traps

LIEUTENANT JOHN PHILIP SOUSA, U. S. N. is one of the foremost trapshooters of, and President of the American Amateur Trapshooters' Association. He is a member of the New York A. C., the Port Washington Y. C., the Okoboji Indians, and a member of several other famous sportsman's organizations. Since the war he has been training hundreds of musicians for the Marine Bands and is stationed at the Great Lakes Naval Training Station.

John Philip Sousa, Lieut. U. S. N.

In the foreground: Com. C. A. Marsland

DURING the winter months trapshooting is a pastime much favored by yachtsmen and among the prominent Yacht Clubs to take up this sport is the New Rochelle, of which C. A. Marsland is Commodore.

Mr. S. E. Church, left
Mr. Ralph L. Spotts, right

TRAPSHOOTERS desirous of making every tournament held in the course of the war, a Red Cross shoot, have applied to the National Red Cross Headquarters for permission to do this, and Mr. Ralph L. Spotts was named as Chairman of the Committee and fund. It is the idea that all entrance fees, aside from the actual cost of shells and targets, will go into the Red Cross fund. The Red Cross in turn provides a medal which is the same as that given at patriotic sailing regattas, and undoubtedly thousands of dollars will be collected for the Red Cross at trapshooting events in the course of the winter season.

A particularly big and attractive shoot of this kind will be held at Wilmington, Delaware, under the auspices of the Wilmington Trapshooting Association on Saturday, November 9th. The special attraction at this tournament, will be a contest between five champions, Mr. Spotts being one of them; he, by the way is second vice-president of the American Amateur Trapshooting Association and twice winner of the Amateur Championship of America at 200 clay birds. He is a member of the N. Y. A. C. and a booster for all things that tend to improve the trapshooting game.

SPRING

(Any Old Year)

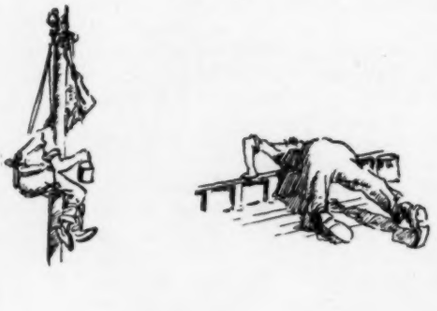
Being the tale, reprinted from the July number of THE YACHTING MONTHLY, of a poor old duffer who, like many another of us, looks eternally for "Youth"—forgetting, don't you think, that there is great joy in being old so long as one owns a boat?

By THE PHILOSOPHER

"and listened with her lips apart."

NOW on a certain Island that lay in the sea there dwelt a man, and he was a philosopher that lived according to his philosophy, which isn't as easy as it looks. Oh, no! not by a jug full. For he possessed but few of the things of this world, yet most of the things he possessed he had paid for in hard cash or with bitter experience.

And among his possessions were three things he valued above everything. And the first was a dog that loved him in preference to all other men, and the second was a boat that carried him in all his wanderings, and obeyed him without any back chat. The third and his greatest pride, was a supreme contempt for all women. For in this he stood apart from other men of lesser intelligence, and therefore no trouble entered into his life, and he digested his food, such as it was, without let or hindrance. Wherefore was he puffed up with pride and said "Women, my dear boy, are weak and foolish creatures."



"was preparing his boat for a voyage."

"and he was a philosopher"

"and with spring came a Little Lady."

Now behold winter departed from the land and the sun rose higher in the heavens each day, and the air was filled with the song of birds, and the trees stirred in their sleep and put forth buds and leaves and—to put it shortly—the spring arrived.

And with the spring came a Little Lady tc the Philosopher's Island. She was fashioned differently from the women of the Island. And her raiment was so cunningly made that it appeared to be part of her and to move with her, and she walked as if she feared no man, not even the Philosopher, or his Dog. And the people of the Island were astonished at her, especially the women thereof. But the Philosopher developed a scornful little cough, and his dog ate grass.

Now the Philosopher was preparing his boat for a voyage, even as he did every spring. For he scraped this, and he painted that, and he poured varnish about on the bright work and on his clothes, as if he had been a rich man. And his dog sat on the shore and watched him.

And the Little Lady noticed how he laboured at his boat and she said to the people of the Island "What is this weird object in the baggy trousers?" And they answered "He is our Philosopher and a wise man, for behold, oh Little Lady, he has discovered that all women are weak and foolish creatures, and he does not know what indigestion is." And the Little Lady said "I shouldn't be surprised."

And she returned into her house and stood before the glass and smiled at her image in the glass and the image winked and smiled back at her, and she said "Oh no, I shouldn't be a mite surprised;" and she came out again on to the shore and sat down against the dog. And the dog wagged his tail.

And the Philosopher's cough got worse.

Now it being mid-day the Philosopher returned to the shore that he might eat his lunch which the old woman who "did for him" had prepared. And as he came to the shore the dog rushed into the water to meet him, and danced round him, and in shaking the water from his coat he scattered some on the Little Lady—as is the way of dogs.

And she stood up and shook her dress that looked as if it was part of her, and patted it with a lace handkerchief. And the Philosopher, who was a gentleman even if he was a philosopher, uncovered his head, and having driven off his dog, explained to the Little Lady how great his sorrow was

"Oh, no! I shouldn't be a mite surprised."

"as is the way of dogs."

that his dog should have scattered water on her. And the Little Lady looked at the Philosopher with her brown eyes and smiled at him, and she said to him "Oh Philosopher, it is nothing that my raiment is splashed, neither was it thy fault, but mine." And he answered "Not-atall, I'm sure." And they fell into talk, and he told her many things of himself and his boat and his philosophy, so that he was late for lunch.

Now in the afternoon as he worked, behold a little pain wandered round inside him, so that it troubled him, and he placed his hand on the bottom of his chest and said "Strange! passing strange!! it must be the cold lunch." And he looked at the shore and the dog was there alone. And the Little Lady sat at home fashioning a garment of which I know not the name, garnishing it with little ribbons, and ever and anon she laughed like water rippling over little stones, for her window looked on to the shore.

And the next day at an hour before noon she walked on the shore and sat again by the dog; and the dog wagged his tail, and the Philosopher's little pain moved about inside him. But as the Philosopher prepared to come ashore, the Little Lady returned to the house where she lived, and the Philosopher said "Damn!"

And that night the Philosopher did not sleep—and as he lay awake he communed with himself, saying "Perchance that Little Lady, who undoubtedly is a weak and foolish creature, has caught a cold through getting wet, and I've got a nasty little cough myself, and that wretched cold luncheon has been bothering me. Maybe I should call and ask."

And the Little Lady, before she fell asleep, said to her image in the glass "I shall wear my brown dress, and a tiny little bunch of blue flowers."

Now as the Philosopher returned to his house the people of the Island wondered greatly for behold he whistled as he walked, and in his coat was a tiny little bunch of blue flowers.

But his dog ate more grass.

And that night before the Philosopher lay down to sleep he took his trousers, which were exceedingly baggy, and having folded them with care, he placed them beneath the bed, so that in the morning they were covered with many creases in all directions.

Now the Little Lady's hair was brown and lay in waves on her head, and as she dressed it in the morning, the sun played in it so that it shone like gold in one place yet was like autumn leaves in another. And her eyes danced with merriment and her laughter rang like silver in the collection box.

She tied her hat on with a silk scarf like gossamer, and came forth on to the shore, and the Philosopher met her

"and in his coat was a tiny bunch of blue flowers."

"Strange! Passing strange!!"

there in his trousers that were covered with creases in all directions, and together they went on to the Philosopher's boat.

The cuckoo sang in the distance and all the people of the Island wondered.

But the dog ate more grass.

And the Philosopher sailed the Little Lady up a beautiful river, and he talked to her of many things, but mostly about himself, which is the way of Philosophers.

And he could in no wise take his eyes from her hair which sparkled in the sun like fine gold, and many times he got on the putty because his mind was not with his boat.

And the Little Lady sat on the deck by the Philosopher and clapped her hands at the gulls on the water, and laughed at the waves, so that the Philosopher didn't know quite where he was. No! I'm dashed if he did.

And as they sailed the river got narrower and narrower, and the trees on either side grew higher and higher, until the wind could in no way reach the boat's sails. And turning the corner they came upon an open space in the trees which is called "The Enchanted Glade," and here was a small pier where they might land. So taking food with them they landed at the small Pier, and the Little Lady ran ahead of the Philosopher who followed. And together they ate under the shade of a great tree. And having fed, the Philosopher lit his pipe and, sitting with his back to the tree, he thought. And the Little Lady sat near him and watched the sun moving slowly to the westward and the birds and the butterflies among the trees and flowers. And as she watched she held her breath and listened with her lips apart, for a long way off in the woods she heard music, like the music of a flute.

And she said to the Philosopher "I hear music among the trees." And the Philosopher listened and could hear nothing but the wind in the tree tops, and the birds, and the bubbling of his pipe.

And again the Little Lady listened and she said "Surely, oh Philosopher, you can hear it? It is Pan playing his pipes."

And the Philosopher laughed and said "Oh weak and foolish one, Pan is dead, for I killed him myself."

But the Little Lady looked at him, listening, and, getting up slowly, said "Pan is not dead, for I can hear him playing even now. I will go and bring him to you, my poor Philosopher."

And the Philosopher smiled at her and replied "You are a child. Go if you wish, and do not be long, for the tide is ebbing and we must not be late."

And she departed slowly into the wood listening as she went and walking as in a dream. And when she was gone the Philosopher sat and smoked and thought, and said to himself "She is indeed a weak and foolish creature, but all the same there is that about her which pleases me mightily."

(Continued on page 196)

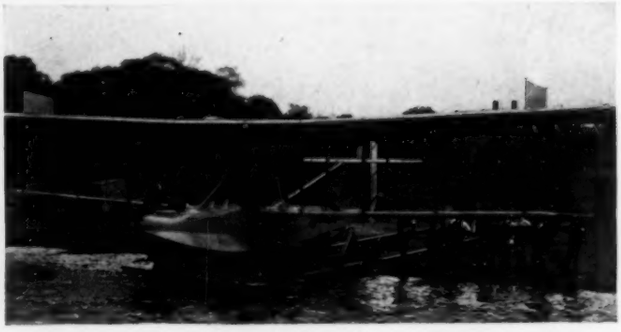
"and blowing his whistle lustily he departed."

A WINGED THE FLY-

THE flying boat because on the water or in the air ideal craft for ferry service mer home

I

AT Bayonne, N.J., in the yard of the Elco Works a large flying boat was recently set up.

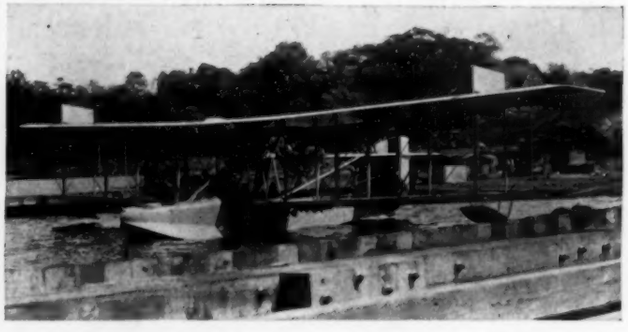


II

THIS craft is one of the products of the Standard Aircraft Corporation of Elizabeth, N. J. Its length over all is 38 feet which with a wing span of 74 feet makes this craft one of the largest of its type ever launched and flown in New York waters.

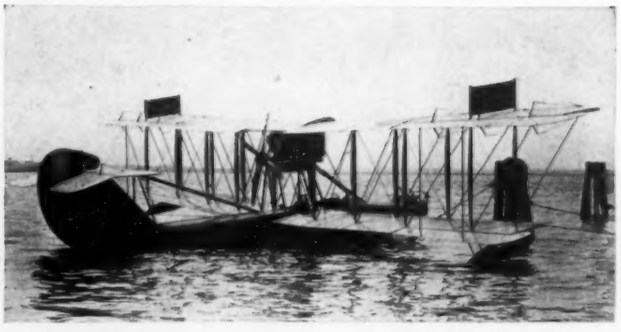
III

IN the Elco basin it set high and trimmed well and for all its weight of approximately 7500 pounds appeared as buoyant as a gull and as eager to be about its business of searching submarines as the gull is of seeking food.



IV

MOORED at the pier's end and awaiting its pilot and crew, an onlooker had time to inspect it's power plant, a 12 cylinder Liberty motor and four bladed propeller; it's fuel tanks of sufficient capacity to allow the craft to travel without stop for five hours at a 90 mile speed; it's guns mounting in the bow, it's bomb carriers under the lower wings; and some other fitments those gentle German supermen have yet to feel the crash of.



WONDER, ING BOAT

of its great speed either will, after the war, be an between the seaside sum- and town.

VIII

BY the buzz of themotor's exhaust one hears she is returning. Overhead she flies.

VII

SOON daylight shows beneath the keel and with the resistance of the water lost **H. S. 2 L.** rushes into the wind. In half a minute she is half a mile distant, and ascending in graceful curves is soon a speck in the western sky.

VI

AND, cast adrift the crew test out the controls, start the motor, pull down their goggles and, as the motor is accelerated, the craft rapidly gains headway and is soon gliding over, but still on, the water at a 50 miles an hour speed.

V

WITH crew aboard, and at the end of a painter, **H. S. 2 L**, which by the way is the efficient if not romantic designation of this type and size flying boat, was towed clear of the docks and boats along shore by a busy little tug into the open water of Newark Bay.

Making Your Compass Tell the Truth

The Use of the Home-Made Pelorus in Taking Bearings of the Sun—A Talk on Time, Mean, Local Standard and Apparent—How to Convert One to the Other—An Illustration to Show the Operations in Correcting the Compass and the Rules for Each Step—Setting Your Watch by the Pelorus

PART II

By HENRY M. NEELY

OH, you do not think there is anything interesting to chat about in time?

Well, it all depends. If you are catching a train or setting your alarm clock or chafing because your wife is half an hour late, the time told by the watch that made the dollar famous will be enough. And the only talking about it that need be done is to the aforesaid late wife—if you have the nerve.

But we are dealing now with old Mr. Sun who ran things here long before Mr. Ingersoll ever built a mainspring. The sun started right in the beginning to keep time to suit himself and no one found any fault with it until some man tried to build a clock and then it was found that the sun was really very irregular in his habits and that no piece of machinery could be made to keep track of the solar vagaries.

Here's the trouble. Noon, by general consent, is the moment when the sun is at his highest point in the heavens each day—when he is on the meridian, as the astronomical gentlemen call the imaginary line that would run due north and south through the sky if it were really there. In order to even the calendar up, year in and year out, these astronomers have divided the year into 365 days and the days into 24 hours each and they have agreed that 12 o'clock in the daytime shall be considered noon. This absolute regularity is necessary because such machines as clocks run—or ought to run—with absolute regularity.

Now, if the earth revolved in a perfect circle around the sun, so that the distance it travels each 24 hours would cover the same angle from the sun every day, month in and month out, its motion would bring the sun on the meridian at the same clock time each day and the factory whistles could blow for dinner as soon as the rays came down the chimney.

But the earth doesn't travel in a perfect circle by a long shot. It travels in a misshapen ellipse and the combination of its path around the sun and its daily revolution upon its own axis has this result, that some days, when the clocks reach noon, the sun may have crossed the meridian as much as 16 minutes and 21 seconds before (on November 3 and 4) and some days when he may be as much as 14 minutes and 24 seconds late (on February 11 and 12). Sometimes he is just about right and his vagaries run all the way from zero to the extremes given.

This difference between the sun's idea of noon and the noon of the clocks is called the *equation of time*. It is all accurately figured out and the Nautical Almanac will give you for each day just what the difference is so that all you have to do is look it up and apply it according to the plus or minus sign there given.

Clock time is called *mean time* because it is the mean, or average, of all the days of the year. It is the time that the sun would keep if the earth could only be persuaded to travel in a perfect circle around him.

The time actually kept by the sun, or the time when he reaches the meridian, is there for all to see. It is apparent to every one. So you can remember from this that the sun's time is *apparent time* and that is what it is called in the Nautical Almanac and in books on navigation.

Now, there are other kinds of time but only one more that we need bother with. That is *local standard time*.

As the sun appears to cross the sky each day from east to west, it is easy to understand that, when he is on the meridian over New York, he has not yet reached the meridian that runs over Pittsburgh. Pittsburgh is some distance west of New York and the sun will still have some distance to travel before he shines. straight down on the smoke above the Allegheny and Monongahela fork. It will be still some time later than this before he reaches Chicago and later yet before he reaches San Francisco.

In other words, noon at New York comes before noon at any place west of New York. Careful figuring has shown that it takes the sun four minutes to go from one even degree of longitude on the earth to the next even degree west of the first one. Therefore, for every fifteen degrees difference of longitude on the earth, the difference in the actual noons is fifteen times four minutes, or one hour.

It would be most confusing to human beings to have to change their watches and clocks four minutes for every degree east or west that they travel. Along the latitude of New York, the degrees of longitude are only about 45½ miles apart so that a man travelling west from the Metropolis would have to change his watch constantly in order to have it tell him the time of the place he was in at any particular moment. And think of the job of making up a time table! Or of interpreting a time table after it was made up!

To avoid this difficulty as far as possible, men have agreed to a compromise. They have set aside a certain part of the United States along the Atlantic Coast and everybody in that section uses the mean, or clock, time of the 75th meridian. West of this section, the next section adopts the preceding hour, or the mean time of the 90th meridian, and so on westward, with an even hour for each 15 degrees because that is the time it takes the sun to travel that difference of longitude. In actual practice, the scheme can be seen working in several cities where trains going westward use the time of the section in that direction and those going eastward adopt the eastern time.

These are called Local Standard Times—the mean times of the agreed-upon meridians. All this causes some confusion to the motor boat man with a pelorus but it can easily be seen how necessary it is in the ordinary affairs of land life.

I apologize for dragging you through this lengthy dissertation on what may seem to have nothing to do with the compass on your motor boat, but as a matter of fact, unless you understand this matter of mean, local standard, and apparent time, you cannot use your azimuths of the sun nor can you solve any of the problems of navigation.

Because, when you use the pelorus to correct your compass, you must read it by apparent time and, to get that, you have to convert the standard time of your watch to the mean time of the meridian you are actually on or apply the equation of time for the date from the Nautical Almanac and so get the sun's, or apparent, time at ship.

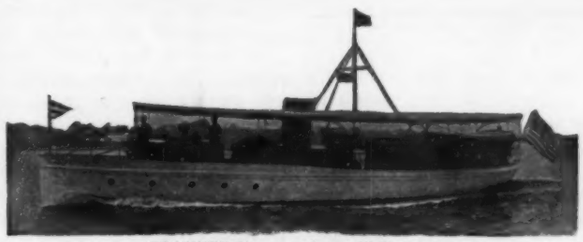
Perhaps an example of actual practice will make all this clearer.

Suppose we are anchored in the Sassafrass River, off Betterton, Md., on July 4th, and we want to take an azimuth of the sun for compass correction.

The first thing to do is to get *apparent time at ship*.

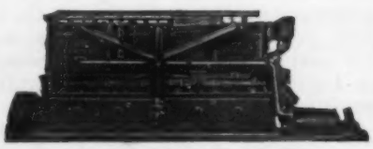
(Continued on page 180)

VICTORY'S CHARIOT
Thousands of Standard workers are doing their utmost to hasten the coming of Victory.
STANDARD
A REAL FIGHTING INDUSTRY!
Member Manufacturers, Aircraft Association, Inc.



FRANCES II—one of our 65-footers

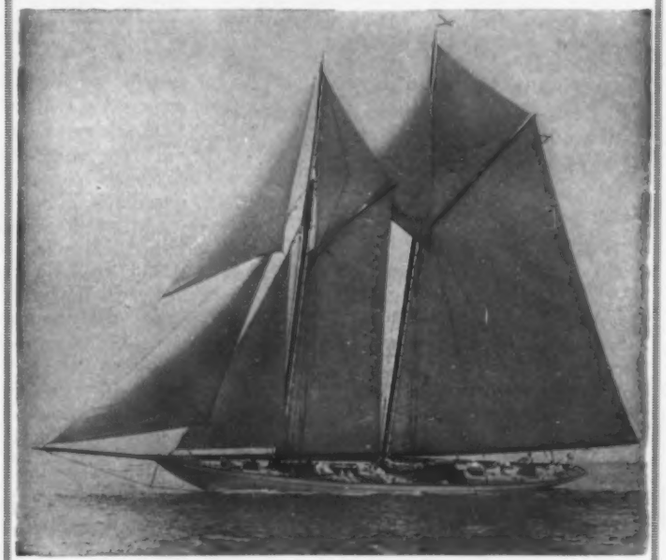
We build yachts complete and there is no divided responsibility. Our 20th Century Motor, which we build in our own shop, is one of the leading engines. We are in position to build you a complete yacht, furnished and equipped, at prices that cannot be equalled when construction and finish are considered. Let US figure on your new yacht for next season.



6-Cylinder, 6½" x 8½" 65 H.P. Twentieth Century Engine

N. Y. Yacht Launch and Engine Co.

Morris Heights
New York



The Quality and Cut of the Sails is as important a factor in a boat's speed as the design of her hull.

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THE STANDARD YACHT SAIL CLOTH

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Turn to your chart and get your longitude. I am writing this on shipboard in the Gulf of Mexico and I have no charts of Chesapeake Bay with me but I judge Betterton to be about 76 degrees, 04 minutes west longitude. That figure will do for this example, anyway.

Very well; your watch says that the time is 3:40 P. M. Correct. That is Eastern Standard Time—the mean time at the 75th meridian. But we are in longitude 76.04 W., or 1.04 west of the standard meridian. Now, as the sun travels 15 degrees in one hour, or one degree in 4 minutes, the real mean time on our little ship is 4 minutes and 16 seconds different from the standard and, as we are west of it, and the sun does not come to us as soon as it does to the 75th meridian, our mean time is earlier than 75th meridian mean time. So we subtract the difference.

Turning longitude into time is done simply enough by dividing all the way across by 15. Thus:—

1 degree 04 min. equals 64 min.; this to be divided by 15:—

15)64(4 min.
60
—
4 min. remainder, equals 240 seconds to be also divided by 15:—

15)240(16 sec.
15
—
90
90
—

—— Result, 4 min. 16 sec.

If west of standard meridian, subtract; if east, add.

Here is the rest of the example:—

	h.	m.	s.	
75th meridian time	3	40	00	P. M.
Difference of longitude in time (subtract)	0	04	16	
Mean time at ship	3	35	44	P. M.

From this we must get the apparent time at ship. This, as I have explained, depends on how far ahead or behind of mean time the sun is on that date.

We look in the Nautical Almanac for July 4th and see that the equation of time for 0, or noon at Greenwich (0 at Greenwich always means noon) is minus 4 min. 3.1 sec. The minus sign means that the amount is to be subtracted from mean time to give apparent time. The Nautical Almanac gives you this for every two hours at Greenwich and, as Greenwich time is 5 hours ahead of 75th meridian time, we know that, when it is 3:40 P. M. by our watch here, it is 8:40 P. M. at Greenwich. So take the equation for the nearest hour (8) and you will find it to be minus 4 min. 6.8 sec., or call it 4 min. 7 sec. Applying it to the example:—

	h.	m.	s.	
Mean time at ship	3	35	44	
Equation of time (minus)	0	04	07	
Apparent time at ship	3	31	37	P. M.

It is wise to keep a hack watch or clock on the boat and adopt ship's practice of setting it to apparent time every morning by applying the equation of time for noon that day. The hourly difference can be ignored for practical purposes. Then, you are ready to take an azimuth whenever you put the little boat on a long course and so satisfy yourself that the course you are steering is really correct.

To summarize the rule for apparent time:

1. To your watch's time, apply the difference for longitude from the standard meridian. This gives mean time at ship.

(Note—The difference in time for longitude is obtained by dividing the difference in longitude by 15; subtractif west of standard meridian; add if east.)

2. To the mean time at ship, apply the equation of time for the day. This gives apparent time at ship.

Now let us have a look at the azimuth tables published by the Government and sold for a dollar at all nautical houses.

Over the tables in the first part of the book, you will see "Declination—same name as—Latitude." This sounds formidable but it isn't. Declination is simply the sun's latitude in the heavens—its angular distance north or south of the sky's equator. In the summer it is north; in the winter, south. Its exact declination for every day in the year is given in the Nautical Almanac alongside of the equation of time but the Government's azimuth tables make it unnecessary to look it up for compass work because, in the tables, under the column for each degree of declination, is a list of dates when the sun has that particular declination.

Now, in our example, we are at Betterton, Md., on July 4th. Betterton's latitude is 39 degrees north—close enough for azimuth work. The sun's declination on July 4th is very near to 23 degrees north, and, as Betterton's latitude and the sun's declination are both north, they have the same name and we use the tables in the first part of the book.—"Declination—same name as—Latitude." In the winter time, when the sun's declination is south, we would use the tables in the second part of the book—"Declination—contrary name to—Latitude."

Now turn to the table headed with Betterton's latitude, 39 degrees north, "Declination—same name as—Latitude."

Down each side of the pages, in black type, are figures giving each ten minutes of the time of day, the morning hours down the left hand side; the afternoon hours *up* the right. These times, you must never forget, are *apparent times at ship*.

As it is afternoon, we go *up* the time figures on the right hand side of the page until we come to the time we want. Our apparent time at ship is 3.31.37 P. M. The nearest time given is 3:30 and the date nearest to July 4th is July 3rd—both sufficiently near. Opposite 3:30 and under July 3, we find 93 degrees 50 minutes.

In the morning, this figure would mean north 93 deg. 50 min. *east*, in other words, beginning at the north point, you would have computed 93 deg. 50 min. toward the right, but in the afternoon the sun's bearing is always westerly so the figures mean that, from north, the 93 deg. 50 min. are to be computed to the left or west.

That, then, is the sun's true bearing at 3:30, apparent time, on July 3 at Betterton, Md. It is as close as you will need it for 3.31 July 4th—as close as you can figure it with an expensive instrument and closer than you can steer a motor boat with a 3-inch compass card.

If the date had been somewhere around midway between July 3 and July 12, the next date given, you would have taken the mean of the bearings for the two dates.

You will notice that the compass card given with this home-made pelorus does not use the degrees from north toward west. It uses the modern navy style, beginning at zero (north) and going all the way around clockwise to 359. This is much better and simpler in applying compass error but it makes one little calculation necessary when you are taking bearings in the afternoon. In the morning, the bearings will be just as they are in the azimuth

(Continued on page 182)

EDRIS, A DAY CRUISER FROM SOUTH AMERICA

BELOW the equator the motor boat finds favor, a natural thing to be sure, for men, and women too, of all nations love recreation afloat. This particular craft is owned by Senior Carlos Bartsih of Valdivia, Chili.

"Victory" How that word will sound some day! What a meaning it will have to all the peace-loving world! And how proud that "Other Army" will feel that it helped to hasten the great day!

That "Other Army"—do you know what it is? It is the army of civilians which, without roll of drums or fluttering of colors or glitter of sabers, is helping the army of the Allies to crush the Kaiser and Kaiserism to earth. It is the army of Business. And every jobber, merchant, retailer and shopkeeper is a brave part of it, a powerful part of it, a necessary part of it for it is in their division of business that the greatest salesmen are employed. Salesmen and saleswomen whose experience, skill and courage in selling the merchandise of peace make them past masters in the selling of Liberty Bonds and War Savings Stamps.

Victory depends as much upon the quick and steady sale of these investments as it does on the valor and courage of the armies of the Allies. You know that and you must not forget it. Money is the power behind the will to fight of the allied European governments and the Government of the United States of America. And the Fourth Liberty Loan and War Savings Stamps must bring in this power.

Sell them for Victory. Enroll your great armies of salespeople in the battle now and keep them enrolled until victory is won—by the Allies! If the Allies win Victory will have a new meaning—*Peace.*

It is up to the "Other Army" of the U. S. A., and you business heads are the leaders of this army.

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tables but in the afternoon, you must subtract the given bearing from 360.

In our present example, then, the bearing, north 93 deg. 50 min. west, subtracted from 360 would give us as the sun's true bearing 266 deg. 10 min.

Having thus learned to read the true bearings of the sun, let us now see how it is actually taken and applied to the compass in practice.

First, of course, it is assumed that you have your compass mounted with the lubber line in a true fore and aft direction, absolutely parallel with the keel of your ship. If you have not, you might better heave the whole outfit overboard for it will always lead you wrong. Apply every test you can think of to this lubber line because it is most important.

The compass will probably be near the wheel, under the awning and away from the sun. So the pelorus will have to be mounted some distance from it, probably on the cabin top where the sun can be got at at any time of day.

Having chosen the position for the pelorus, you should mount a board there permanently and calculate a lubber line for it as carefully as you do for your compass. This can be done by running a light line or string fore and aft over the centre of the compass, measuring exact distances off from it at right angles at bow and stern and running another string between these points over your pelorus stand. This last line will give you the lubber line for your pelorus. Mark it clearly and permanently and see that the pelorus stand is absolutely level in all directions, with the weight of your mate at the compass and of yourself at the pelorus, just as you will be when you take azimuths.

With this done, let us suppose that we have calculated in advance the sun's true bearing at Betterton, July 4th, 3.30 P. M., apparent time at ship.

A few minutes before the time, station your mate at the compass and yourself at the pelorus. Fix the thread in the moveable arm to cut through 266 deg. 10 min.—you'll have to estimate the 10 min., but it will nŏt matter much—and keep turning card and arm together, with the thread always cutting that figure, and the shadow of the upright thread always on the sighting line along the arm. At the moment of 3.30, apparent time, remember, sing out to your mate to read the ship's exact heading by compass and you yourself, see how she is heading according to the lubber line of your pelorus.

Let us assume that your compass says that she is heading 340 degrees, or north by west ¾ west, and your pelorus says 356 degrees, or about north ⅜ west. The difference between the true and the compass reading is the *Total Error*, and is the difference between 356 and 340, or 16 degrees.

This is not by any means too much for a plausible example. I have seen compasses so placed in small motor boats that, on some courses, they were as much as four points, or 45 degrees, wrong and their owners didn't know it! Much use that would have been in a long run or in a sudden fog.

Now, in applying the error we have just found, you need memorize only one short sentence but you must memorize it thoroughly. It is this:—*Easterly Error, from True to Compass, Subtract.*

Say that over and over again until no one can get you mixed up on it.

Then remember that every other application runs by opposites. If easterly error *Subtracts* from true to compass, it *Adds* from compass to true. If easterly error adds in any case, *Westerly* error *Subtracts* and vice versa.

Take our Betterton bearing. The true heading of the boat was 356 degrees, the compass, 340. Now, what we want to find out for our deviation card is, when the compass says 340, what does it really mean? In other words, we are to change compass to true. Therefore we are working opposite to the memorized rule, which was from true to compass. If therefore, easterly error subtracts in the rule, it adds in the opposite. And if easterly adds, westerly subtracts.

What do we have to do in this case to change from 340 compass to 356 true? We must add, mustn't we? Therefore, as we are working opposite to the rule, and easterly error adds in the opposite, this 16 degrees must be easterly error. So we put it down and name it East.

This is the total error, or the result of both variation and deviation. The deviation only is what we want so we must apply the variation.

Your charts will tell you what this variation is for each locality. Assume that it is 7 degrees westerly at Betterton, which is about what it really is if my memory serves me right.

Here's the rule:—

The Deviation Takes the Same Name as the Total Error Except When the Total Error Is Subtracted from the Variation. Then It Is Named Contrary to the Total Error.

In this case, the total error is 16 east and the variation 7 west. This means that the variation alone would pull the card 7 degrees one way but that the deviation is strong enough to pull it back through those 7 degrees and 16 degrees the other side. So the deviation must be 23 degrees and, as we do not subtract it from the variation, it must have the name of the total error, which makes it 23 degrees easterly.

This, then, is the deviation of your compass when your boat is heading 340 degrees, or N. x W. ¾ W. And this deviation will always apply on that course. But, in using it in laying out future courses, don't forget to see what the variation is for the waters you are to cruise through and apply it to the deviation to get total error. The simplest plan is to lay your courses out on the magnetic compass rose instead of the true. Then you need simply know what your deviation is on that course and steer accordingly.

The compass, to be of real use to you, should have its deviation thus figured out for at least eight points—the cardinals and intercardinals. Much better to figure it out for 16 and, best yet, for all 32. Then you can depend upon it.

To end this talk on the pelorus and azimuths, I promised to tell you how to set your watch by means of our home made instrument. This can be done only after you know the exact error of your compass or can get an accurate true bearing from the

(Continued on page 184)

Baptism of Ships

QUITE naturally, the prohibition movement sweeping over this continent has resulted in an agitation to use water in place of wine at ship launchings. The question of making such a substitution came up recently in Ontario, which not long ago became one of the Dominion's dry provinces. Out of deference to the local temperance union, it was first intimated that Lady Hearst, the wife of the provincial Premier, would break a bottle of water over the bows of the War Ontario at the time of the launching of that steamer. This led to a storm of protest on the part of the shipworkers, who appear to be as superstitious as sailors in this particular, and who are reported to have declared that they would not work further on any vessel christened with water. Consequently, when the actual launching took place, the time-honored ceremony was observed of spilling wine on the prow of the new ship. It is well known, of course, that this practice represents the survival of the old pagan custom of making a votive offering to the gods upon the completion of a ship. Savage tribes have been known to shed human blood when a new canoe was ready to take to the waves, while the Norsemen used to attach human victims to the rollers upon which they launched their ships. The Turks sacrificed sheep just as their vessels were about to leave the ways, and the ancient Egyptians sought to propitiate their deities by breaking eggs upon their newly constructed craft. The belief of sailors that a vessel not christened with wine will not have a prosperous career is merely an unfounded superstition, as was evidenced in the case of the Hartford, Admiral Farragut's famous flagship. When launched at the Charleston navy yard in 1858, her three sponsors doused her with water taken from a Hartford spring, the Connecticut River, and the ocean itself. Despite the absence of wine at the launching ceremony, the Hartford became one of our navy's most renowned victory ships. Old customs die hard, however, and it may take the advocates of temperance a considerable time before they can reconcile the public to the sprinkling of water instead of wine at the baptism of ships.

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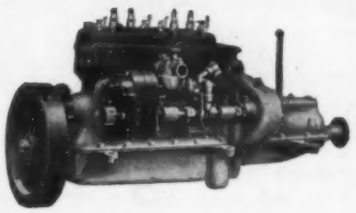

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PISTOL POINTERS

The most difficult weapon to use effectively is the pistol. This article is written by an expert in pistol practice and describes the simple rules that every beginner should know and observe. *See November OUTING.*

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chart on some distant shore object well over a mile away.

Set your pelorus card with the zero mark pointing true north. Let us assume that it is July 12 and we are still at Betterton, enjoying some of the very charming society that is to be found there.

With your pelorus card set true, turn the arm until the shadow of the thread falls on the line. Read its bearing. Let us say that it is 153½ degrees. As this is less than 180, or half way 'round, we know that it is not yet noon. So we glance down the July 12th bearings in the tables, Latitude 39 as before, and see that the nearest bearing on that date is 150 deg. 24 min. at 11.20 A. M., apparent time.

Our bearing has passed that but has not yet arrived at the next. So, watch in hand, we set the arm on the next bearing—157 deg. 10 min.—and wait. The moment we see the shadow of the upright thread cut the line, we know that it is 11:30 A. M.

This is apparent time at ship. The equation of time for July 12 in the Nautical Almanac is 5 min. 20 secs., minus. That is what you would subtract from mean time to give apparent time, so you must add it to apparent time to get mean time. This gives us 11 hours 35 min. 20 sec. A. M.

But that is mean time at Betterton, in longitude 76 deg. 04 min. west. What we want is standard time for our watch, and as the 75th meridian is east of us and it is later there than here, we add the time equivalent of the difference in longitude, or 4 min. 16 sec. and find that the Eastern Standard Time at the moment of taking the azimuth is 11 hours, 39 minutes, 36 seconds A. M.

We set your watch accordingly, having, of course, made all of these calculations in advance, and you can rest assured that you will be less than a minute out of the way if everything has been carefully done.

[And remember, reader, time considered throughout this article is sun time and not the newer "saving daylight variety."—Ed.]

FOR THE SKIPPER'S BOOK SHELF

"UNDER SAIL," the realistic narrative of a seaman's life aboard a square rigger on its voyage around Cape Horn in 1898, is in book form. Our readers will remember well Felix Riesenberg's tale, for it ran as a continuous story in YACHTING a little over a year ago.

The book is illustrated by its author and it seems quite like old times to thumb it through and live again with Australia, Old Smith, Skouse, Frenchy, Charlie Horse and the others of the crew of the good ship *A. J. Fuller*.

The book is published by Macmillan Co., New York, N. Y.

✿ ✿ ✿

"FIFTEEN men on The Dead Man's Chest—
Yo-ho-ho, and a bottle of rum!
Drink and the devil had done for the rest—
Yo-ho-ho, and a bottle of rum!"

Who else but Bill Bones, heavy in rum and leaning over the grog room table at the "Admiral Benbow" inn, can pipe this old time pirate song?

All of which reminds one of a beautifully illustrated edition of "Treasure Island" by Robert L. Stevenson that has just come from the press of Charles Scribner's Sons.

Mr. George Varian who has followed the sea himself, and whose illustrations appear in this edition has caught the real atmosphere of this story of the sea, and his drawings add materially to the interest of Stevenson's wonderful tale.

✿ ✿ ✿

AS long ago as 1620 one Van Drebbel built a boat which was supposed to have traveled under the surface of the Thames River from Westminster to Greenwich, so you see the idea of the submarine is an old one.

True, no even half-way successful craft of this type appeared until the period of 1875–1900. Nevertheless all these old time inventions paved the way for the engineering genius of France to create submarine boats that were practical.

America has a large share in the development of the submarine too—but there is not room here for all of the story of the submarine. It is well told in "Submarine Vessels," written by W. E. Dommett and published by Isaac Pitman & Sons, 2 West 45th St., N. Y.

THE Navy is in urgent need of sextants, esther new or used, and any person having one or more of these instruments is requested to bring them to the Branch Hydrographic Office, 78-80 Broad Street, New York City, where they will be inspected as to their fitness for use and an appraised value placed on them.

Sextants with ivory scales or those needing more than minor repairs or adjustments, are not desirable for Navy use.

Payment will be made to the owners of the instruments accepted.

SO poignantly told is "Gentlemen at Arms," a vivid book by "Centurion," that one in reading it has the feeling of standing watch with the lieutenant commanding a "drifter" as it wanders over the "no man's land" of the sea—the lurking place of submarines and mines, or of roaming with a squad of "moppers up," through a battle torn farm in Flanders.

In its twenty-one tales are chuckles as well as tears, high courage and cheerful patience.

Doubleday Page & Company, Garden City, L. I., are the publishers of "Gentlemen at Arms."

✿ ✿ ✿

THE world has waked up to the fact that the one great discovery of the age is the airplane—it has come to stay just as the motor car and the motor boat have.

How the aeroplane is built, how it is flown, what the aeroplane means to the future—are some of the facts in "Aircraft in War and Commerce," a very interesting book by W. H. Berry just published by George H. Doran Company, New York.

✿ ✿ ✿

IT is the French temperament as much as the literary skill of Henry Malherbe, the author of "The Flame that is France," published by the Century Co., that lends to this book an air of excitement not to be found in English books of its sort.

Yes, shipmate, it *is* more than worth reading, it is! A unique experience is in store for you who stop to read it.

THINK THIS THROUGH

Facts that are dead right lead to conclusions you cannot escape

MAGAZINES are made up of: Paper, Ink, Presswork, Binding, Glue, Wire or Thread, Wrappers or Labels, and Postage, all produced, assembled and distributed by employed Brains and Muscles. During the last twelve months, the cost of each of these factors has increased in some cases more than double. In the twelve months to come many, if not all of these factors will be increased still more.

THESE ARE FACTS

For these reasons many magazines have been forced to increase their price this past year. And it is just as evident as can possibly be that other magazines will be forced to increase their prices.

YOU CANNOT ESCAPE THIS CONCLUSION

The prices given here are not guaranteed to hold for more than 30 days. It is your last chance. Because for 30 days only we will fill subscriptions at the prices given below. Next month we shall revise them. Be forehanded. Don't put this off. Select your next year's magazines now and send us your order.

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40	American Boy	100	Life	35	Pictorial Review
40	American Magazine	60	Literary Digest	45	Review of Reviews
80	Atlantic Monthly	25	Little Folks	27	Rod and Gun
25	Baseball Magazine	25	McCall's	95	Scientific American
25	Boys' Life	35	McClure's	60	St. Nicholas
25	Boys' Magazine	40	Metropolitan	70	Scribner's
80	Century	30	Modern Priscilla	30	Short Stories
35	Christian Herald	40	Motor Boat	45	Smart Set
50	Collier's Weekly	25	Musician	40	Sunset
80	Country Life	23	Musical Observer	75	Theatre
55	Current Opinion	70	Nation	70	Travel
30	Delineator	20	National Sportsman	40	Woman's Home Companion
20	Designer	100	New Republic	15	Woman's Magazine
30	Everybody's	80	North American Review	60	World's Work
27	Etude	35	Outer's Book	50	YACHTING
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Gentlemen: November.....1918

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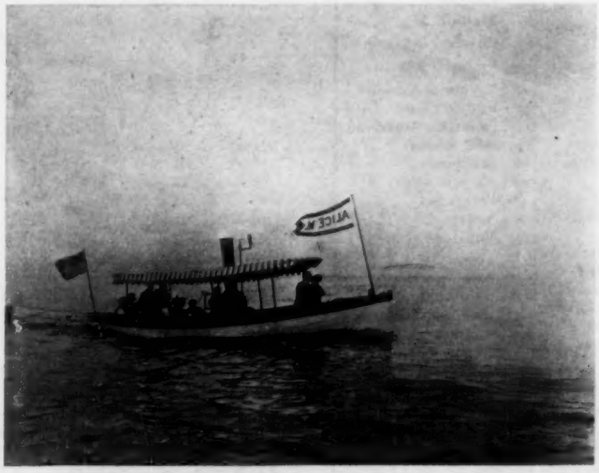
YACHTS OF YESTERDAY AND TODAY

By JOHN DAVENPORT

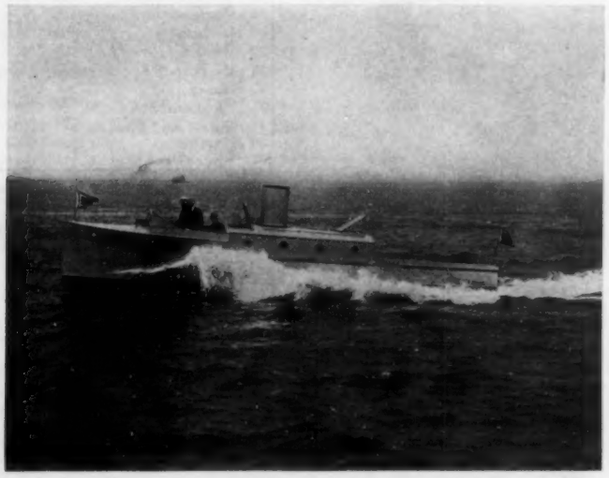
A PICTORIAL comparison of the small power and sailing yacht of 30 years ago and now. At the rate we travel now-a-days even Caddy II and the trim knockabout will be old-fashioned in five years time.

HOW different the sloop yachts of the early eighties were! How out of date they seem with their plumb bows, long bow sprits and over sized club topsails? Saracen though, for this is the Burgess sloop of that name, was a smart sailer when New York Bay was the sailing waters of New York Yachtsmen.

THE modern fin-keel knockabout with its cross cut sails, single head sail, and narrow rig is a fast sailer, especially on the wind. Not a little of its sailing ability may be attributed to the wonderful fabric from which sails are made now—material for instance like Lowell Duck—and to the perfect set of the sails which such material makes possible.



AND oh, those old steam launches! full of pipes and valves and coal and noise and heat. But they got there just the same. The steam launch demonstrated to yachtsmen that a small craft that could travel in any direction and on schedule time had unusual value as a pleasure vehicle. Although a steam propelling plant had many discomforts it at least propelled, and at a regular rate, which was to some folks better than waiting for a breeze aboard a sailing craft.



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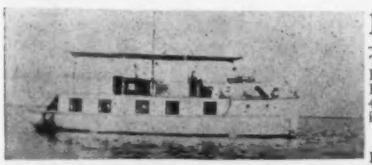
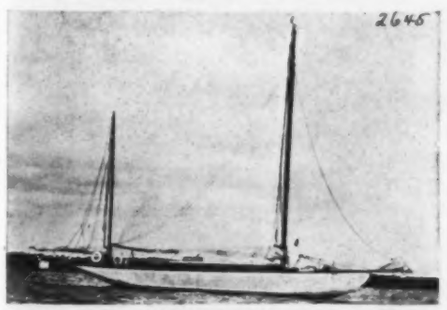
NO. 5951—FOR SALE—Attractive modern express day cruiser, 40 feet length, built 1917, Van Blerck motor, speed 22 miles, heavy construction: all first class condition. Price reasonable. Gielow & Orr, 52 Broadway, New York City.

NO. 3987—SALE—CHARTER—Up-to-date modern 85 Florida cruising houseboat. Four large staterooms. Standard motor. Speed 10 miles, draft 30". Hot and cold water, electric lights. Inspectable Florida. Price reasonable. Gielow & Orr, 52 Broadway, New York City.

NO. 4441—FOR SALE—Exceptionally able raised deck cruiser. 45' length, 11' beam, 3'4 draft. Four cylinder Sterling motor with self starter. Speed ten miles. Accommodates four persons besides crew. Has made extended cruises off shore. Proven wonderful sea boat. Fully equipped. In commission, New York. Owner anxious to sell. Price low. Gielow & Orr, 52 Broadway, New York City.



NO. 6233—CHARTER for FLORIDA—New 43' Mathis house boat cruiser. Beam 13' 6", draft 32". Speed 8 miles. Four cylinder Standard motor. Stateroom and saloon sleep six. Completely equipped. Delivered in commission November 1st. Price reasonable with captain paid. Gielow & Orr, 52 Broadway, New York City.



NO. 2645—FOR SALE AND CHARTER—Most attractive 55 foot auxiliary yawl. Beam 15 feet, draft 2' 8. Four cylinder motor. Speed seven miles. Large saloon and stateroom. Sleeps six persons. Boat in commission near New York. Opportunity to obtain a bargain. Gielow & Orr, 52 Broadway, New York City.

NO. 2013—FOR SALE—Herreshoff 30' Water line Buzzards Bay class sloop. 46' 6" overall, draft 5'4, sails new 1917. Completely furnished and fitted for cruising. In commission near New York. In first class condition throughout. Price low, if sold before laying up. Gielow & Orr, 52 Broadway, New York City.

NO. 5052—FOR SALE—Desirable 55' cruiser. Large deck accommodations. Two double, one single stateroom and main saloon. Sleep six. Four cylinder heavy duty motor. Speed ten miles. Exceptionally roomy boat for size. Perfect condition throughout. In commission near New York Price reasonable. Gielow & Orr, 52 Broadway, New York City.

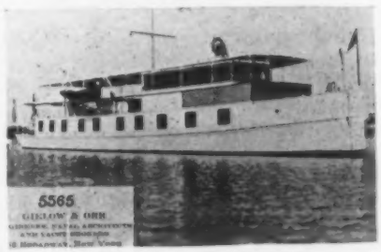
NO. 43—FOR SALE—Well kept up 95-foot auxiliary keel schooner. 68 feet waterline, 20 feet 5 inches beam, 10 feet draft. Handsomely finished inside. Three staterooms, bathroom. Sails, engine and cabin equipment new 1916. Gielow & Orr, 52 Broadway, New York City.

NO. 4591—FOR SALE—Able twin screw steel gasoline cruiser, 120' length, 18' beam, 6' draft. Built our design. Two 6-cylinder Speedway motors. Two double, three single staterooms. Sleeping ten. Finest available yacht of size. Fully furnished. Inspectable Great Lakes. Gielow & Orr, 52 Broadway, New York City.

NO. 3957—FOR SALE AND CHARTER—Desirable 75' cruising motor yacht. 13' beam, 3' 6" draft. Standard motor. One double, two single staterooms. Deck saloon. Perfect condition throughout. Fully equipped. Price reasonable. Gielow & Orr, 52 Broadway, New York City.

NO. 4527—FOR SALE—Desirable 40 foot cruiser, 10 foot beam, Sterling engine, stateroom and main saloon all perfect condition, fully equipped for cruising. Price reasonable. Gielow & Orr, 52 Broadway, New York City.

NO. 5378—FOR SALE—Successful class "P" sloop. Comfortable sleeping accommodations, four persons. Two suits Ratsey sails, one brand new. Outfit perfect condition. Price reasonable before laying up. Inspectable New York. Gielow & Orr, 52 Broadway, New York City.



NO. 5565—SALE—CHARTER—Modern 85' motor house boat. Draft 30", built 1916 for Florida cruising. Standard motor. Speed 9 miles. Two double two single staterooms, all modern plumbing and fittings. Most desirable boat for Florida available. Can be chartered and for sale at bargain price Inspectable Florida. Gielow & Orr, 52 Broadway, New York City.

NO. 1640—FOR SALE—EXCEPTIONAL BARGAIN—85 foot modern keel and centreboard Lawley built schooner, flush deck, lead keel, three staterooms beside main saloon, all excellent condition and fully equipped. Boat has been kept up strictly as a yacht in first class manner. Owner will sacrifice. Gielow & Orr, 52 Broadway, New York City.

NO. 5455—FOR SALE AND CHARTER—Attractive shoal draft Florida cruiser. 45' length, 14' beam, 34" draft. Six cylinder heavy duty motor. New 1916. Speed ten miles. Large double stateroom and saloon. Sleep four besides crew. Awning full length. Exceptional deck room and ventilation. In commission. Perfect condition throughout. Price low. Gielow & Orr, 52 Broadway, New York City.

Will the German Fleet Fight?

The Opinion of an Officer of the Navy That Has Been Endorsed By Some of the Keenest Minds in the Service

WHETHER or not the German high sea fleet now safely hiding in its practically impregnable base behind mine fields and fortifications will come out to engage in a general battle is a question that has excited various opinions, and involves some important considerations. While reports have appeared from time to time that the German fleet was preparing to come out and give battle, the fact remains that the fleet has not left its base in two years, and the reports so far have proved idle rumor. Nevertheless there are some officers of our Navy who have held to the idea that the German fleet may eventually come out for a general battle; others who are among the most experienced and keenest thinking men in the Navy do not believe it will do so. In a recent discussion of war problems on the sea involving the German high sea fleet an officer of the Navy whose opinion is entitled to great weight, and which was endorsed by others, said:

"Under present existing conditions what could the German high sea fleet hope to gain by coming from its base and engaging in a general battle? This great fleet remained impotent and powerless before the mighty fleet of Great Britain and remained in hiding while the splendid mercantile fleet of Germany was swept from all the oceans of the world. It lay idly by while all Germany's colonies were taken from her. Now, all this happened before the United States entered the war. It is the first time in history that the war fleet of a great maritime nation has remained inactive, and has not made any endeavor to protect its own commerce, and to battle with the enemy on the high seas. Why? As I remarked previously, all this happened before the United States entered the war. If the German high sea fleet was so impotent then to meet battle squarely, how much more impotent must it be at the present time, now that the splendid fleet of the United States is added to that of Great Britain and our other allies?

"It is true that the Germans have secured, it is believed, all that is left of the Russian navy worth having. But even if the vessels of the entire Russian navy were in the pink of condition, which of course, they are not, their addition to the German navy does not half approach the increased power the United States has added to the Allied fleet. The Germans have undoubtedly built many new vessels for their navy since the war began; so have Great Britain and the United States, and other of the Allied powers. Under the most liberal allowance for German enterprise in shipbuilding, it is a known fact that it is insignificant when compared to the great additions to the Allied navies. It is hardly to be believed, then, that the German high command ever had any intention of sending its fleet out to try a square conclusion in a general battle, even against the British fleet alone, and this is a reasonably sound conclusion. After past experiences it is absolutely unreasonable to suppose it will come out now, and seek sure destruction by meeting both the American and British fleets only too anxiously awaiting it.

"The German navy on one or two occasions has sent a portion of its capital ships out a short distance from its base to try how a nibble at the British fleet would result. Each time after an engagement the German ships have hurriedly sought safety at their base, which a victorious fleet would not do. Since the German fleet came out from its base and fought the British at the battle of Jutland in August, 1916, and then ran home, it has not been out for battle. In fact, no German warship larger than a destroyer has ventured 150 miles west of Helgoland since August, 1916, except the two light cruisers which attacked a lightly guarded convoy in October, 1917, in Scandinavian waters. The British and American warships patrol the North Sea right up to the German mine fields and about Helgoland on the alert for German ships. Unless the German fleet had suffered the most extreme punishment at the hands of the British, and had realized that their game of hit and run away was a bad game for them would the Germans have allowed their high sea fleet to remain for two years in idleness?

"There have been rumors that the German navy was being regunned, and that when this was accomplished the Germans would come out and fight at a range beyond the power of opposing ships to reach. This is a very improbable speculation, and while increased gun range and power are likely on some ships of newer design, it is safe to say that the entire German navy will not be armed with new monster guns beyond all power of Allied guns. The Allied fleets have not lost sight of the fact that the fighting range has been greatly increased and have made provision for this contingency. The increased range of battle was early established by the British and Germans, and at the first battle of Helgoland the British warship Lion crippled the German cruiser Ariadne at 16,000 yards. In the Dogger Bank fight the German warship Blucher was hit at 18,000 yards; and as a further example of the increase in battle range, firing commenced in the battle of Jutland at 18,500 yards. One German battleship was sent to the bottom by gunfire only a little under the latter distance. Future battles may be fought at a range of 30,000 yards or even more, as sighting appliances and fire-control are improved. The angle of elevation for the big guns has been increased in both the American and British navies, and the Germans have probably done the same. It is betraying no military secret to state that battle practice in both the British and American navies is now conducted as high as 30,000 yards, and Capt. Charles P. Plunkett, U. S. N., Director of Gunnery Exercises of the U. S. Navy, advocated several years ago that 20-inch guns be designed for the use of our Navy.

"It is very probable that the Germans will resort to some trickery in the hope of reducing the number of big ships in the American and British fleets more nearly to the level of their own. They may try to decoy them out for a supposed battle with the idea of having them run into a mine field and destroy themselves, or have them run into nests of submarines. But that the German fleet will come out and give a general stand up battle is too good to believe.

"Gas shells are used by the Germans in guns of various caliber, on sea as well as on land. A few ounces of lachrymatory substances in a shell exploded in the right place aboard a warship would blind the entire personnel of a ship. Defensive measures have been taken to meet such gas attacks aboard ship, and although the Germans used gas shells in the battle of Jutland, their effects were fortunately not serious. No one can safely predict, however, what the future may bring forth. The Germans may have planned some new special long-range gun for gas shells in the hope of being able to use them in such numbers as to demoralize the Allied fleet in an attack. Gas masks, however, are provided for men aboard ship as well as for troops ashore and whatever new delivery in warfare the Germans plan it will undoubtedly be properly met.

"Of course naval strategy demands that

(Continued on page 196)

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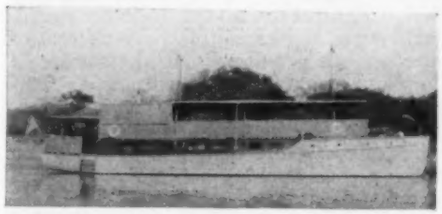
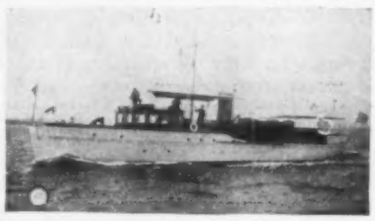
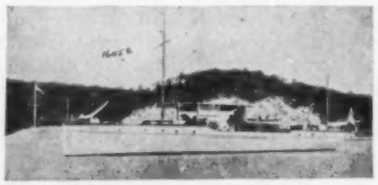
NO. 1828—FOR SALE—Cruising Power Yacht; 75 x 13 x 3.6 ft. Speed 11–12 miles; 50–60 H.P. Standard motor. Dining saloon and galley for'd; three staterooms, bathroom and two toilets aft. Excellent condition. Cox & Stevens, 15 William Street, New York.



NO. 3570—FOR SALE OR CHARTER—Roomy power cruiser; 66x15.4x3 ft. 10 in. Built 1914. Speed 10-11 miles; 60 H. P. 6 cyl. motor, electric lights, etc. Large accommodation including two double staterooms, saloon 14x8 ft., bath, two toilets, etc. Unusual deck space. Practically in commission. Cox & Stevens, 15 William Street, New York.



NO. 1674—FOR SALE—Attractive 85 ft. modern power yacht. Speed 13–15 miles. Excellent accommodation. Splendid opportunity to secure high grade craft at extremely low figure. Cox & Stevens, 15 William Street, New York.

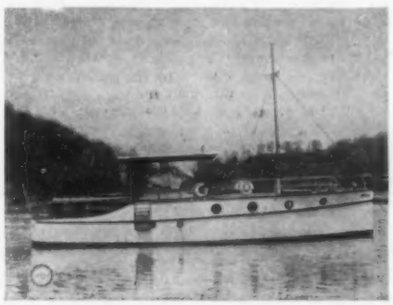


NO. 1645—FOR SALE—70 ft. off-shore gasoline cruiser; recently built by well known firm. Speed 11–13 miles; 6 cyl. Winton motor. Main saloon and galley aft; two double staterooms and bathroom forward. Unusual opportunity. Cox & Stevens, 15 William Street, New York.

NO. 1662—FOR SALE OR CHARTER—Attractive 90 ft. twin screw gasoline houseboat; speed 10-12 miles. Large saloon, four staterooms, two bathrooms; all conveniences. Handsomely furnished. Cox & Stevens, 15 William Street, New York.

NO. 2560—FOR SALE—Fast, V-bottom, twin screw power cruiser; 60 x 13 x 3 ft. Built 1917. Speed up to 18 miles; two 6 cyl. Sterling motors. Double stateroom forward; roomy saloon aft with separate galley; two toilet rooms (one with Sitz bath). Low price for quick sale. Cox & Stevens, 15 William Street, New York.

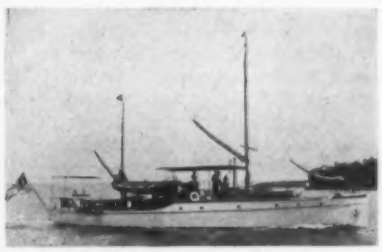
NO. 3241—FOR SALE—Light draft, roomy bridge deck cruiser; 48x14x3 ft. Speed 10 miles; 6 cyl. 4 cycle motor. Built 1915. Double stateroom, saloon, two toilet rooms, etc. Cox & Stevens, 15 William Street, New York.



NO. 1378—FOR SALE—Bridge deck cruiser; 40 x 9 x 3.6 ft. Speed 11 miles. Double stateroom aft. Saloon and galley forward. Equipped with 6 cyl. 40 H. P. motor located under bridge deck, absolutely shut off from forward and after cabins. Price exceptionally low. Cox & Stevens, 15 William Street, New York.

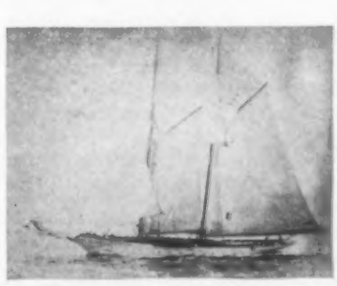
NO. 3035a—FOR SALE—Fast and very roomy bridge deck cruiser; 47x10x3 ft. Speed 16 miles; 100 H.P. 6 cyl. 4 cycle motor. Separate galley, saloon and single stateroom forward, besides double stateroom and toilet room aft. Electric lights. First class condition. Cox & Stevens, 15 William Street, New York.

NO. 3561—OFFERED BY ESTATE—Lawley-built, flush deck, keel auxiliary schooner yacht, 90 ft. overall. Recent build. Saloon, three staterooms, bathroom, etc. Ratsey sails. Speed under power 6 to 7 miles. Exceptional opportunity. Cox & Stevens, 15 William St., New York.



NO. 2547—FOR SALE—Handsome, modern, exceptionally able gasoline cruiser; 64 x 12.6 x 4 ft. Speed 11½ miles; 60 H. P. 6 cylinder heavy duty motor controlled from bridge. Main soloon, toilet and separate galley forward; engine room amidships; double and single stateroom and bathroom aft. Cox & Stevens, 15 William Street New York.

NO. 3541 — FOR SALE OR CHARTER — Particularly desirable 100 ft. steel twin screw cruising power yacht. Practically in commission; very attractively finished and furnished. Speed up to 15 miles; two 6 cyl. air-starting and reversible Standard motors. Fitted with every convenience. Large dining saloon and social hall on deck; five staterooms, bath, two toilet rooms, etc. Without doubt finest craft of type and size available. Cox & Stevens, 15 William Street, New York.



NO. 148 — FOR SALE—Steel, flush deck, steam auxiliary schooner yacht; 130 ft. overall, 110 ft. Waterline, 26 ft. beam, 15.6 ft. draft. Speed under power 9knots; compound engine; electric lights; all conveniences. Extremely able craft; heavily constructed. Cox & Stevens, 15 William Street, New York.

The Corrosion of Steel Vessels

Steel, Especially in a Ship, is Subject to the Ravages of Rust. Unless it is well Coated by some Material That Prevents the Oxygen of the Air or Water from Access to this Material the Life of the Vessel will be Short

CORROSION of a vessel's hull takes place both externally and internally, and the latter is probably the more difficult to guard against, as it is generally more local and more severe than with the external portions. Any one who has had experience of surveying ships' hulls will know how quickly the parts under boilers or the lowest strakes of bunker bulkhead plating can corrode, especially when they are not readily accessible for examination; where as the whole of the external portions of the bottom can be readily examined when a vessel is in dock; the large number of frames, floors, bulkheads, girders and flats, render internal examination a laborious and difficult process, where a little negligence, if continued for any length of time, may have very detrimental results. Against this disadvantage must be set the fact that these internal portions can be frequently examined, it being unnecessary to go through the evolution of dry docking, and so more frequent surveys can be carried out. An obviously important point in the design of a vessel's structure therefore, is the ready accessibility of all portions of the hull.

Corrosion may be defined as the tendency of nature to reduce all substances to their lowest chemical form; in fact, nature is ever at work pulling down or reducing to their primitive state the structures or edifices which she or man has already set up. Thus, the continents and mountains, which giant forces of nature have built up in previous ages, are being continually attacked by the rains and snows and erosion by the sea. If this persisted through countless centuries with out further outside influences or terrestrial upheavals, doubtless a state would eventually be reached in which all matter was stable and incapable of any further reduction. To the human eye a steel ship looks a solid structure, incapable, without enormous forces, of being resolved into its primitive state, but actually from the moment when the steel has been produced by man from the ores excavated from the earth the forces of nature begin a powerful and never ceasing attack upon it, which is relaxed only when the material is at last reduced to a state wherein the prevailing forces can have no further effect. Only by the most careful and constant attention can a steel structure be kept from rapid decay, and this is usually effected by covering its exposed surfaces with some material which prevents the oxygen of the air or elsewhere from direct access to the material.

There are those who uphold the principle that corrosion by chemical action and by galvanic action are one and the same thing; whether this be so or not is immaterial for the effective prevention of corrosion, and it is simpler to consider them as separate as far as possible.

For all practical purposes chemical corrosion can be regarded as the result of the affinity of oxygen for iron tending to produce a ferrous, and later a ferric oxide. The oxygen cannot combine with the iron without moisture, or, at least, the action would be so exceedingly slow as to be negligible; the probability is that in the case of submerged structures the oxygen held in solution in the water forms an active acid with the saline constituents of the water, and with the carbonic acid gas also held in solution, and this acid attacks the steel, producing the compounds above mentioned. A layer of oxide having once been formed, this in turn produces a direct corrosive action on the iron by transmitting part of its oxygen thereto, and so continuing the process of converting the iron into oxides. This process does not apparently diminish as time goes on, but its rate actually increases, so that it is clearly the commencement of oxidation on the exposed surfaces. It is possible that the continuation of the rusting or oxidizing process is a result of purely galvanic action, for the oxide is electro-negative to the iron with which it is in electrical connection, and there being moisture present containing carbonic acid and salt, an active electrolythic action takes place. This would also account for the fact that the rate of corrosion increases as time goes on, owing to the presence of a larger electro-negative surface.

So closely allied are the effects of chemical and galvanic action that it is not possible to consider one entirely separate from the other. Theoretically, with a plate perfectly homogeneous electrically, galvanic action cannot take place even if the necessary electrolyte be present; in such a case the commencement of oxidation must be of a purely chemical nature. Actually it is practically impossible to produce such a plate, certainly not as a commercial proposition, for the smallest difference of composition or molecular structure is sufficient to render that portion electro positive or electro negative to the surrounding material. Such being the case it is obvious that if moisture can get directly to the surface of the plate galvanic action will ensue. This want of electro-homogeneity probably accounts for the fact that steel plates rust much more rapidly than iron plates, which caused a considerable amount of disquietude in the early days of steel ships before anti-corrosive compositions were fully understood in relation to steel.

It is significant that when examining a vessel's bottom after several months at sea it is seldom, if ever, that corrosion is found to have taken place equally over any considerable area; it is invariably found in "spots," as exemplified by the familiar "rust-cones." This is exactly what one would expect from galvanic as distinct from chemical action, and seems to support the theory that even the commencement of corrosion is attributable to electrical action.

Zinc protectors are, of course, a valuable preventative of corrosion, but their action is distinctly local. In way of valves through the ship's bottom, propellers of gun metal or other alloys, etc., they divert the electrolythic action to themselves, but their radius of influence is not great. In order to render any effectual help in combating corrosion of the vessel's structure, it would be necessary to fit thousands of them, an obviously impractical arrangement.

An interesting feature about the corrosion of vessel's bottoms is that it is enormously greater nearer the waterline than at the bottom portions of the structure, more

(Continued on page 192)

The Seaplane

A TINY speck in the evening sky
Nearer drawing across the main.
She cleaves the path that the swallows fly
Flecked by the sunset's crimson stain,
Homeward winging in graceful flight
As her feathered kin to the shore at night.

Nearer, and out from the glory far
Her song comes floating down the steep,
As tho' she sang to each watching star
A last good-night ere she sank to sleep,
Whilst from the shadows pearly gray
The horned moon shimmers across the bay.

The great ships know of her vigil keen,
Watching, watching the deeps below,
Where a grim, gray death by them unseen
May wait to launch her bolts of woe,
And sailor prayers for the heroes rise
Who man the watch towers of the skies.

Dreamy and slow is the song she sings
Gliding down from her airy quest,
Ever lower on slanting wings
As the sea bird wheels to its rocky nest,
And ocean, as tho' by her song beguiled,
Takes from the mother's arms their child.

HENRY CHAPPELL

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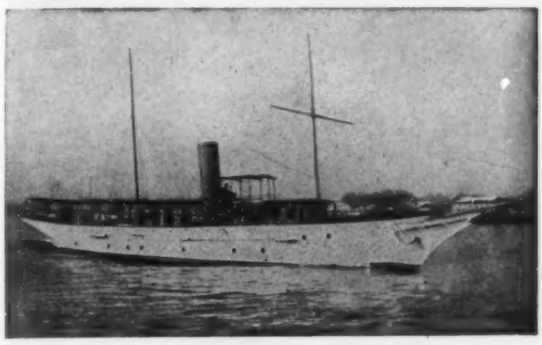
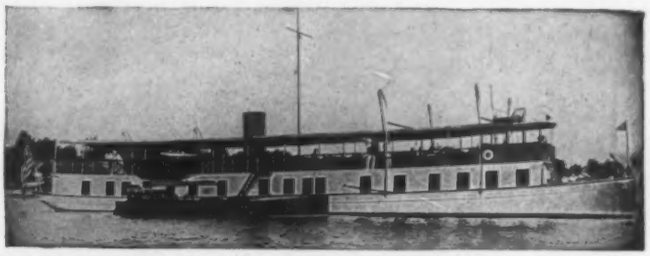
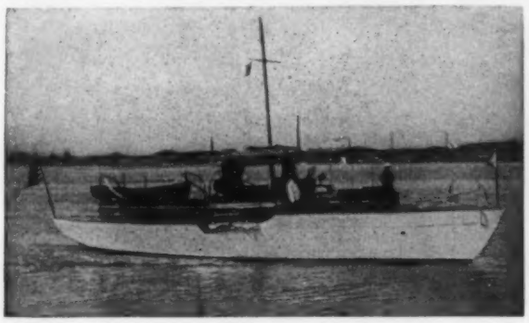


NO. 7987—FOR SALE OR CHARTER—Modern cruising motor yacht 106 x 13.6 x 6 ft. draught. Built 1911. 300 H. P. Standard motor; speed 13 knots; 4 staterooms, saloon below, deck dining saloon, bath room, 2 owner's water closets. Lighted by electricity. Large quarter and bridge decks. Full data from Tams, Lemoine & Crane, 52 Pine St., New York.



NO. 1848—SALE—CHARTER.—Modern houseboat, ideally suited for southern waters, 123 x 115 x 17.8 x 3.4 ft.; 2 Standard motors, 4 large staterooms, 2 bathrooms, saloon; very large shade deck; lighted by electricity and has new ice machine. Full particulars from Tams, Lemoine & Crane, 52 Pine St., New York.



NO. 8940—FOR SALE.—Exceptional opportunity to purchase at a bargain, raised deck cruiser, 61 x 12.10 x 3.6 ft. draught, built 1909, 2-40 H. P. Knox motors new 1912, lighted by electricity. Excellent owner's accommodations. Further particulars from Tams, Lemoine & Crane, 52 Pine St., New York.

NO. 6054.—Auxiliary caravel yacht, the most picturesque houseboat in America; extraordinary accommodations on deck and below. Should be seen to be appreciated; a comfortable, safe cruiser. Has covered the coast between New York and Bar Harbor several times. If stripped of her caravel rig and high bulwarks and rails, the hull would still make a most desirable houseboat. Further particulars from Tams, Lemoine & Crane, 52 Pine Street, New York.

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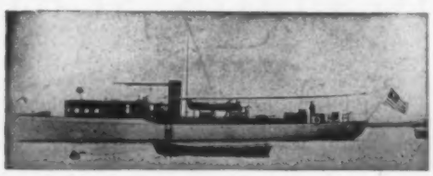
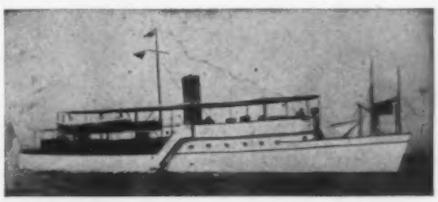
NO. 1937—Diesel Power Yacht, 110 ft. by 18, two 6 cylinder 150-180 H. P. engines; low fuel cost. Apply William Gardner & Co., 1 Broadway, New York.



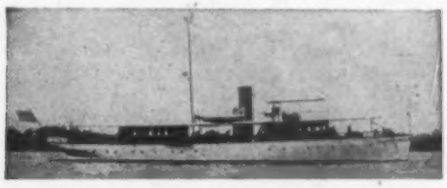
NO. 1081—90 ft. Power Yacht, 2 new six cylinder Standard engines installed 1916, and yacht overhauled throughout. Excellent accommodation. Apply William Gardner & Co., 1 Broadway New York.

NO. 2243—Practically new, twin-screw 60 foot express cruiser, Sterling engines, speed 22 miles. Apply William Gardner & Co., 1 Broadway, New York.

NO. 1738—Raised Deck Cruiser, 65' x 11', six cylinder motor; good accommodation. Apply William Gardner & Company, 1 Broadway, New York.



NO. 924—Power Yacht, 92 ft., six-cylinder 20th Century motor recently overhauled, good deck space. Apply William Gardner & Co., 1 Broadway, New York.



NO. 646—SALE—CHARTER—Steel Steam Yacht, 123 x 17, two large deckhouses, five staterooms, etc. Condition good as new. Apply William Gardner & Co., 1 Broadway, New York.

particularly in the case of deep-draught vessels. Thus, in one special case of a vessel of 26 or 28 feet draught, experience showed that the corrosion was small in those portions deeper than about 20 feet; it then increased rapidly up to a depth of about 6 or 8 feet, above which it was more or less constant and greater than the remainder. This phenomenon is probably due to the fact that in those portions of the surrounding water which were constantly aerated by the disturbing motion of the sea, fresh active corrosive elements are continually added. Hence, the especial care which is bestowed upon the "between wind and water" portions of a vessel's hull, which is frequently coated with a special "boot-tapping."

A BRITISH COASTAL MOTOR BOAT

AT his home in the Isle of Wight, to which he retired some years ago, Sir John Thornycroft has pursued his life work of developing the science of marine engineering, especially as it relates to speed on the water.

We all remember wonderful little *Zigarella* that raced for the B. I. T. trophy off Larchmont in 1910. She is one of the forerunners in the development of the Coastal Motor Boats whose wonderful achievements in the Great War are at last, if meagrely, being released by the British censors.

THE UNITED STATES POWER SQUADRONS' NAVIGATION SCHOOLS

THE Free Nautical Schools of New York, maintained by the United States Power Squadrons, Inc., have already given instruction to more than 3000 men. These schools are now organizing new classes which are open to every one who is interested to learn. Most of the students are young men in the Navy ambitious to improve their prospects. Some of them are eligible for the Merchant Marine.

The fact that most of the classes are held in the evening and that there is no necessity of taking up more than a single study makes it possible for men who are otherwise very busy to take one or two subjects which are most interesting.

With the cooperation of several public bodies and the Y. M. C. A. three schools are now in operation, viz., at the High School of Commerce, 65th Street west of Broadway, Manhattan, Morris High School, 165th Street and Boston Road, Bronx, and Public School No. 15, Third Avenue and Schermerhorn Street, Brooklyn.

The classes cover the subjects of Coastwise Navigation, Dead Reckoning, Nautical Astronomy, Deck Seamanship, First Aid, Signaling and Mathematics. Each class meets once a week and the instruction covers about twelve sessions of two hours each.

These schools had their beginning in a movement by members of the U. S. Power Squadrons in 1909, merely for the purpose of securing a proper knowledge of nautical matters to the members of the organization. Some 600 members were instructed and passed suitable examinations. After the United States entered the war the work of the schools increased and on June 25, 1917, the doors of the New York Schools were opened to non-members and a welcome extended to all who wished to study to fit themselves for our country's sea service. Up to date the graduates number about ten per cent or 300 men, nine successive groups having passed through the course of instruction. This was possible in the short time because a new group was started practically every five or six weeks, two groups being carried along at the same time at the High School of Commerce. This necessitated a large corps of instructors and nearly two score masters of Astronomy, Navigation, Mathematics, First Aid, etc., volunteered and are giving their time gratis to this work.

This tuition seems peculiarly fortunate at this time in view of the great number of new ships which will sail under the United States flag and the largely increased number of navigators and officers who will have to take charge of them.

Enrollment at the schools Mondays to Fridays inclusive, or address A. C. Knight, 541 West 34th Street, New York City.

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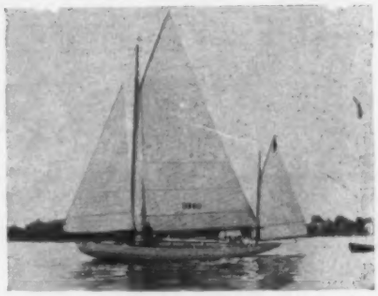
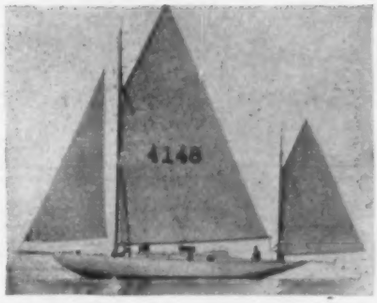
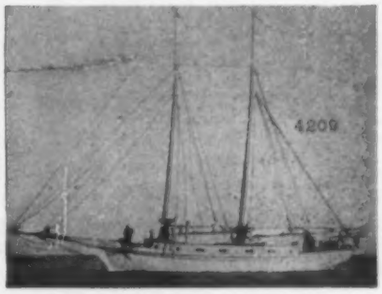


No. 3260. Auxiliary centre-board yawl. Built by Lawley. Stateroom, main cabin with two berths and two transoms. 25-35 H.P. Sterling Motor. Speed 8½ miles. Electric lights. Fast and able. Apply H. H. Jennings Company, 1 Broadway, N. Y. C.



No. 4148. Auxiliary keel yawl 46′ x 32′ x13′x 6′ Double stateroom and saloon sleep five. 15H.P. Sterling Motor. Speed 7 miles. Splendid proposition. Apply H. H. Jennings Company, 1 Broadway, N. Y. C.



No. 4209. Heavily constructed auxiliary centre-board schooner. 56′ x 47′ x 18′ x 3′ 6″. Three staterooms, saloon, bath, etc. Lathrop Motor Speed under power 6 miles. Electric lights. Sails parctically new. Thoroughly overhauled 1917. Owner has just purchased large yacht through us and will consider offer. Apply H. H. Jennings Company, 1 Broadway, N. Y. C.

NO. 1313. High class power yacht. 75′ x 68′ 4″ x 13′ x 3′ 6″, built by Elco Company. Three staterooms, saloon, bath, etc. Standard Motor. Speed 11-12 miles. Electric lights. Apply H. H. Jennings Company, 1 Broadway, N. Y. C.

NO. 1941—SALE OR CHARTER—Semi-houseboat and cruiser 52′ x 14′7″ x 3′. Large stateroom and main cabin. Sleeps six. 32-37 H.P. Standard Motor. Speed 9-10 miles. Electric lights, etc.

NO. 1997. Scout cruiser 40′ x 7′ 7″ x 1′ 3″. 100 H.P. Motor speed 22 miles. Further particulars from H. H. Jennings Company, 1 Broadway, New York.

The Famous Red Covered Catalogue of C. D. Durkee & Co.

OUR friend Hossack, of C. D. Durkee & Company (whose cheeks keep rosy from rubbing them on the red covers of their catalog) has emphasized the belief if the edition of the latest Durkee Marine Hardware catalog were 100,000 more than it is, there would not be a copy left next June. For this reason there is no need to advertise it, but the practical and patriotic features of this year's publication are so poignant that they should be read by all yachtsmen, especially see pages 13, 83, 108, 159, 356, 633, 609a, 612, 861b, 987 particularly 991, 993, 995.

New Directors for Aircraft Manufactories

H. B. MINGLE, president of the Standard Aircraft Corporation and of the Standard Aero Corporation of New York, which companies operate large aircraft plants at Elizabeth and Plainfield, New Jersey, has announced the appointment of new directors to the boards of both these companies. Joseph A. Bower, vice-president of the Liberty National Bank of New York City, and a manufacturer of experience, being president and director of several well-known companies, and Henry J. Fuller, vice-president of the Fairbanks-Morse Co., are the new directors.

Coal Hulks

RIDING idly on the stream,
Black and grimy as the night,
Through the years you idly dream,
Of your youth when decks were white.

Here and there a glint of gold,
On dented figurehead and stern,
Speaks of glorious days of old;
Days that never can return.

Like black coffins on the tide,
Your old hulks swing in living death,
Still you serve the world so wide
And give her fiery steamers breath.

Hulks, 'twere better far, I know,
If yours had been the end instead,
When great ships founder, and below,
Rest till the sea gives up its dead.

FELIX RIESENBERG.

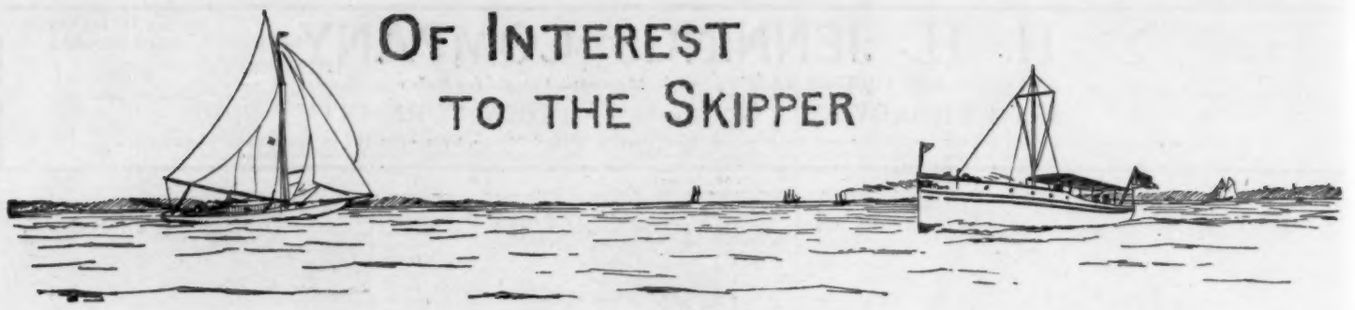
Air Mail Cost Small

THE post office department announces that postal air planes are being operated at a cost of approximately 50 cents a mile between Washington, Philadelphia and New York. Nine machines traveled 7,234 miles at a cost of $3,632. This includes interest on investment, overhead charges, labor, pilots' pay, gasoline, "dead head" time of mechanics, supplies and all other charges. In view of these figures the government has reduced air plane postage from 25 to 16 cents for the first ounce.

The Seamen's Friend Society

THE American Seamen's Friend Society, 76 Wall Street, New York, which conducts work for sailors on an international basis, announces the appointment of Thomas McIntyre as ship visitor and assistant to the Chaplain of its Sailors' Home and Institute on the North River waterfront, New York.

Mr. McIntyre has been for several years a Baptist minister and is a graduate of Mount Hermon School and Brown University. He is now enrolled for studies at Union Theological Seminary.



THE appointment of a War Service Committee to work specifically in the interests of the Marine Internal Combustion Engine Industry of this country before the War Industries Board and other branches of our Government is a big step forward in the right direction.

At the general meeting of marine engine manufacturers held in the offices of the Chamber of Commerce of the United States, Riggs Building, Washington, D. C., on Friday, September 27th last, the following representative manufacturers were elected to serve on this Committee:

James Craig, James Craig Engine & Machine Works, Jersey City, N. J.
Charles A. Criqui, Sterling Engine Co., Buffalo, N. Y.
Ora J. Mulford, Gray Motor Co., Detroit, Mich.
Charles W. Pank, Fairbanks, Morse & Co., Chicago, Ill.
Eugene A. Riotte, Standard Motor Construction Co., Jersey City, N. J.
J. A. Seymour, McIntosh & Seymour Corp., Auburn, N. Y.
Richard R. Young, Union Gas Engine Co., San Francisco, Cal.

Mr. Seymour, whose name was presented and favorably acted upon, was unable to be present at this meeting and he has since notified the Committee that, much to his regret, it will be impossible for him to serve owing to illness.

The Committee is, for the present, composed of six members, all of them being broad-gauge men well known throughout the trade, and a careful analysis of the make-up of this Committee will disclose the fact that the individual concerns represented by these men cover every phase of marine internal combustion engine practice as it is exercised in this country to-day. The interests of builders of motors of the Diesel type as well as the semi-Diesel, kerosene and gasolene, including both the commercial and pleasure ends of the marine industry are well represented in the make-up of this War Service Committee which is peculiarly typical of the industry in its present stage of development.

The Committee, as at present constituted, met in Washington on Wednesday last, October 9th, and elected Eugene A. Riotte, President of the Standard Motor Construction Co., Jersey City, N. J., as its Chairman. As the dominant factor in a business which has grown by leaps and bounds in serving both this country and our Allies with its product, the War Service Committee possesses the clear minded vision and foresight of a man who has successfully coped with the unusual exigencies developed by war conditions.

Following the election of a Chairman the Committee got in touch with the Automotive Products Section of the War Industries Board and also went into conference with the Statistical and Conservation Committees with regard to certain conditions that must be met before the War Service Committee can properly prepare to take up this work in detail. One of the first things to be done will be the filing of a questionnaire by every engine builder of repute in this country. This questionnaire will be along the lines of those required of other industries by the War Industries Board. The form has already been made up and is being forwarded to Washington for the approval of the proper authorities before it is to be sent out to the marine engine builders. When the builder has filled out and signed his questionnaire it must be returned at once to the office of the War Service Committee, 29 West 39th St., New York City, from whence they will when all have been collected, be turned over to the War Industries Board.

In view of the nature of some of the information that will be asked for, the replies will be held to be strictly confidential and the material in the questionnaires will be used solely for the purpose of benefiting the condition of the individual builder wherever possible. A priority rating for the entire industry is to be given and this rating will depend entirely upon the answers given in the questionnaires. Builders who wish to secure for themselves a proper position on the preference list of industries and plants must also carefully fill out the application form which will be sent them for that purpose in addition to the questionnaire.

This entire proposition is of intensely vital importance to our industry to-day and it behooves every builder who anticipates a continuance of his business to cooperate with the War Service Committee in every possible way.

Some of the members of this Committee represent concerns that are also members of the National Association of Engine & Boat Manufacturers, Inc. Following out however, the precedent already established by the War Industries Board in its authorization of War Service Committees representing other industries, the members of this Committee were selected from the industry as a whole and, in this way accorded, they must command the whole hearted assistance of every builder whether large or small of marine internal combustion engines in the United States.

Graham W. Brogan—Duesenberg's New Advertising Manager

THE Duesenberg Motors Corporation, whose publicity and advertising was formerly handled by Rex W. Wadman, advertising agent, announce that they are now handling their advertising direct. Graham W. Brogan, who has been assistant to the general sales manager has been appointed advertising manager.

Graham W. Brogan

The M.L.s at Ostend

(*Continued from page 171*)

commanded by Lieut. T. Jenkins. During the latter part of the action, owing to an accident to our smoke screen apparatus, we were left exposed to the full glare of the star shells which appeared suddenly, soaring above the smoke screen in a surprising manner, while some seemed to have been dropped by an aeroplane which must have been hovering above us. Each brilliant flash that lit up the sea, sky and shore was a signal for a fresh salvo from the enemy batteries, and I cannot but pay a compliment to his monitors finding. The fact that neither the monitors nor the attendant M.L.s. were hit was surprising, for there seemed a constant whirr of shells over our heads and the sea was torn into giant splashes. One salvo that fell around the M.L. under Lieut. A. Chumley, threw up such large splashes that they hid the boat completely. Every moment I expected to see a burst of flame as she went up in a roar of exploding petrol tanks; but when the splashes subsided the M.L. was merely rocking with the concussion but quite unharmed.

But it is not to the officers alone that credit is due; the engineers stuck to their "guns" nobly, unseeing and unseen at their work—so vital to the ship. And to the deck-hands too a mead of praise is due for their coolness and efficiency under what was for most of them their baptism of fire at close quarters.

Summing up the rescue work done by the M.L.s. at Zeebrugge and Ostend on the two nights, eight M.L.'s were engaged and two of these went in twice on the same night, and between them brought out over 350 officers and men from the blockships. Two of these M.L.'s were sunk, but all alive on board were taken off, and four of them, though badly damaged, were brought home safely. It requires courage of no mean order to stand on the unprotected deck of a frail wooden craft and go steadily on into an enemy port under a murderous fire and go alongside a ship that is being hammered by half-a-dozen batteries, as the blockships were hammered by the German guns; yet M.L. 283 was alongside Brilliant once, and twice alongside Sirius on the night of the 22nd of April, and M.L. 532 was with her until her accident. M.L. 276 was alongside Brilliant that night and twice alongside Vindictive, with M.L. 254, on the night of May 9th. While at Zeebrugge, as described in last month's article, M.L.'s 526 and 282 were both inside the Mole taking men off the blockships there.

In conclusion I might quote a remark made by an R.N. Captain to an M.L. Officer on our return to Dover after the second Ostend action. Meeting him on the flying-bridge of Arrogant, the captain said: 'Congratulations! I hear the M.L.'s were up to sample again." A little remark, but one with much meaning.

From the Yachting Monthly

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Spring

(Continued from page 175)

And he fell asleep and dreamed that he was young again, and that the Little Lady came back out of the wood leading Pan, who played his pipes, and she stooped over him where he lay and kissed him, and a lock of her hair brushed across his face, and woke him. And as he woke he heard the music of pipes even as he had heard it in his dreams.

And he started up and looked into the depths of the wood. And from out of the wood came a small boy playing on a whistle so that his cheeks were swelled like ripe apples, and his hair was like red fire and his face was dirty. And the Philosopher called the boy to him and said "Art thou Pan," And the boy looked at the Philosopher and laughed, making answer, "Moi noime's Peter."

"Oh, I see," said the Philosopher—"and what tune are you playing, my little man?" And the boy answered "Oi'm playing 'What's the matter with Farver.'" And blowing his whistle lustily he departed.

And the Philosopher smiled and he said "Dreams are curious phenomena, for in my dream the Little Lady's hair fell across my face and woke me. And he brushed his hand across his face, and it was wrinkled and withered like a shrivelled apple.

Now it was getting late and the Philosopher was troubled that the Little Lady had not returned. So he tried to call her, but his voice was thin and old and carried no distance. And he wandered in the wood looking for her, but he could not find her. And he was perplexed and afraid, for that he had lost the Little Lady, so getting into his boat, he returned with all haste to the Island, and going to the house where she had lived he made enquiries and set a search that they might find her.

"No one loves me now!"

And the Philosopher himself searched in every place and enquired of all he met saying "Friend, hast thou seen a weak and foolish Little Lady with brown hair and laughing eyes, for I fain would find her again? And her name if thou should'st meet her is 'Youth.'"

And the dog said to himself "No one loves me now." And he went out into the garden and ate worms. And in every place where men and maidens are gathered together you may find the Philosopher searching for "Youth" which he has lost and cannot find.

Poor old Blighter!

Will German Fleet Come Out?

(Continued from page 188)

every conceivable movement of the enemy be considered and steps taken to counteract them. For this reason a sufficient force of warships must be on the alert night and day to meet and overwhelm the German fleet in case it does come out. We must act in the belief that it will come out and fight. To this end we must be ready for it at any moment, although it is weary waiting. We have the great German fleet securely bottled up, and we cannot afford to take a chance of loosening the cork. If the German army can ever reach the coast of France and gain the port of Calais, which is highly improbable, the German high sea fleet may attempt some enterprise; but it will not be risked in a general battle. The fleet is being kept safely in idleness, because the German high command realize that it has no chance in battle. The most logical conclusion is that the great German fleet is being safeguarded for the possible welfare of Germany after the war ends. The German government hopes that, with a peace favorable to Germany, it will have a big fleet which can be further expanded for the next war, unless the Allies put it out of her power to retain the fleet by beating her to her knees, taking the best part of her fleet from her and making it impossible for her to have a large menacing fleet in the future. It is the only way to secure a permanent world peace."—*Army and Navy Journal.*

What the Ribbon Bars Mean

THOSE ribbon bars you see on the breasts of the men of the army and navy tell a story, if you know how to read it. They represent medals given for valor or service—medals that are worn only on dress occasions. A light blue ribbon with white stars shows that the wearer is the possessor of the Congressional Medal of Honor, awarded for unusual bravery. It is the highest award in the gift of our government, and is held by very few men.

The other ribbons are for the various campaigns in which the army and navy have taken part. A blue and gray indicates the Civil War Campaign badge; a blue, yellow, and blue ribbon with narrow blue edges is for the War with Spain; red, blue, and red with narrow blue edges, for the Philippine campaign; red with narrow edges of red, white, and blue, for the Cuban Pacification; a yellow ribbon with blue edges, for the China Relief Expedition; and blue, red, and blue with narrow red edges, for the Nicaraguan campaign.

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Of Interest to the Amateur Photographer

A PERFECTLY balanced negative will show no clear portions, excepting in the deepest shadows, which will print out quite black. A good negative will not show shadows as clear glass, and if it does so there can be no question but that the picture has been under-exposed. By always making it a practice to expose for the shadows and let the highlights take care of themselves, more perfect negatives may be obtained than in any other method. With proper development this will yield a negative of splendid brilliancy, with plenty of contrast, but no hard division between the lights and shadows.

✿ ✿ ✿

CAMERAS fitted with focal-plane shutters are deservedly popular. Most of them are of the reflecting-type and are particularly well adapted to aid the beginner to focus and to compose his picture correctly. However, for the average tyro to take the step from rapid rectilinear, in a between-the-lens shutter, to a reflecting-camera with an F/4.5 anastigmat lens and focal-plane shutter is—often—hazardous without due preparation. It is very much like an owner of a Ford motor-car endeavoring to master overnight the mechanism of a Packard.

When purchasing a reflecting-camera with a focal-plane shutter, first read every word of the instruction-book. If there is a point not understood, consult the photographic dealer, next, study every part of the shutter-mechanism, being very careful not to *experiment* with any lever or spring concerning which nothing is known. After becoming thoroughly familiar with every part load several plateholders and make exposures of *one* subject with varying shutter speeds and diaphragm-openings. With the results thus obtained note very carefully the exact effect caused by each change of speed and diaphragm-opening. If results are not sufficiently conclusive, do it all over again. To make doubly sure you understand the shutter-mechanism, take a short walk around the neighborhood and make a few pictures of children, animals and horses under varying conditions.

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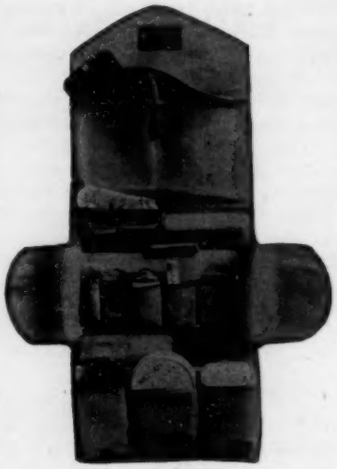

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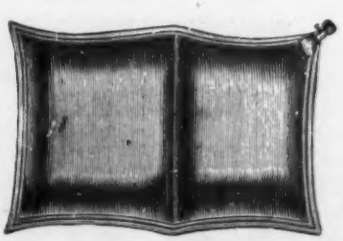

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State of New York, } ss:
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Before me, a Notary Public in and for the State and County aforesaid, personally appeared W. A. Miles who having been duly sworn according to law, deposes and says that he is the Business Manager of YACHTING, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, to wit:

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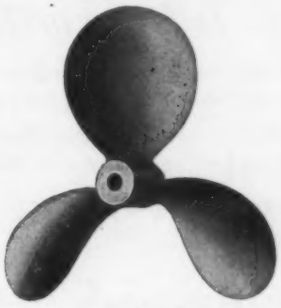

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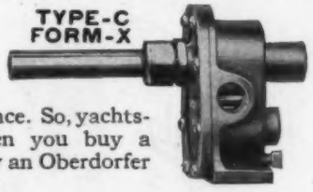

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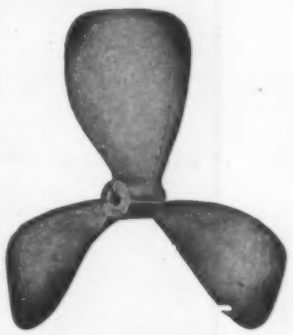

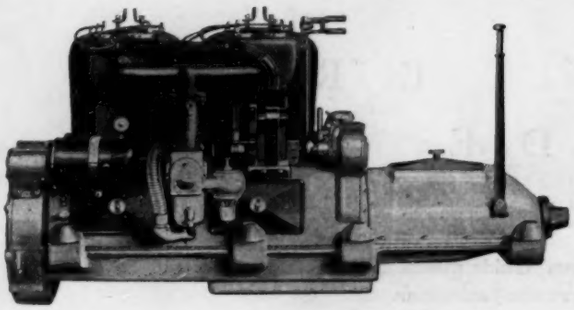

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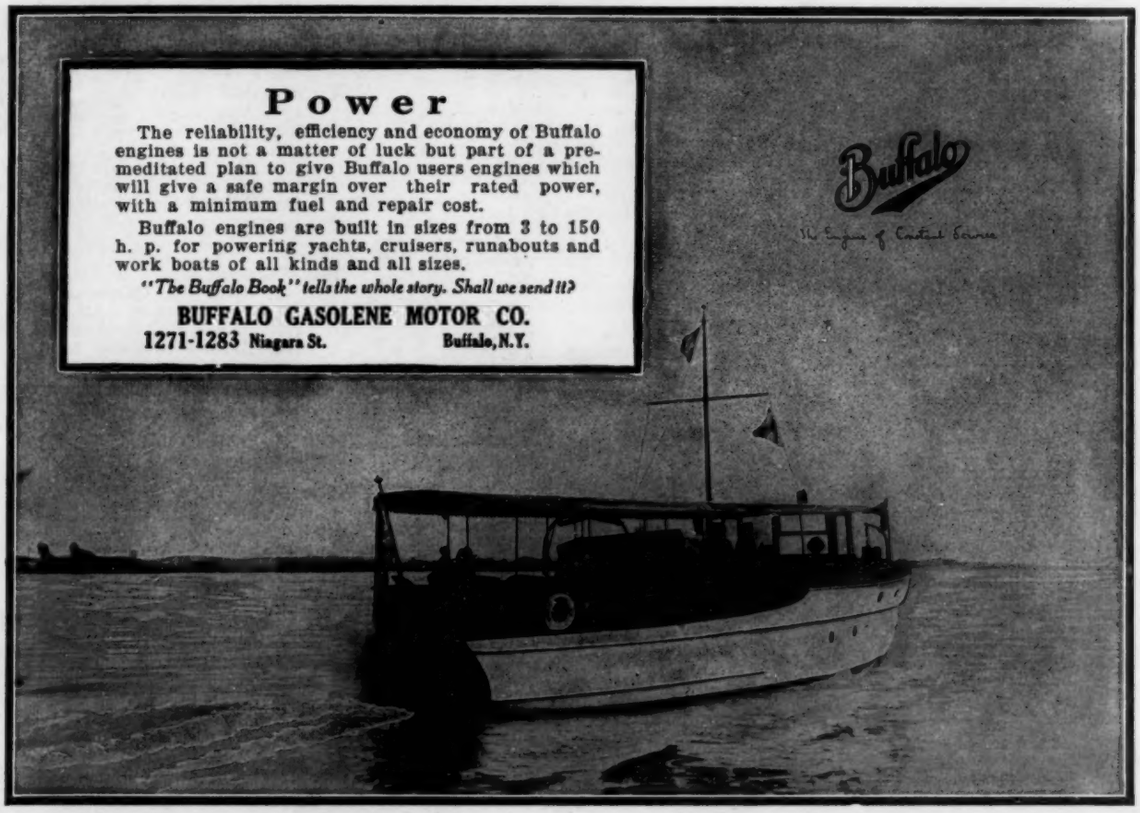

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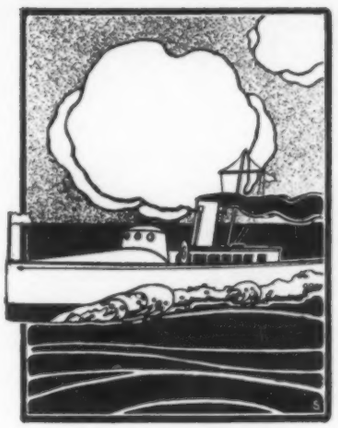

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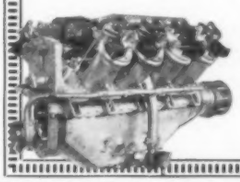

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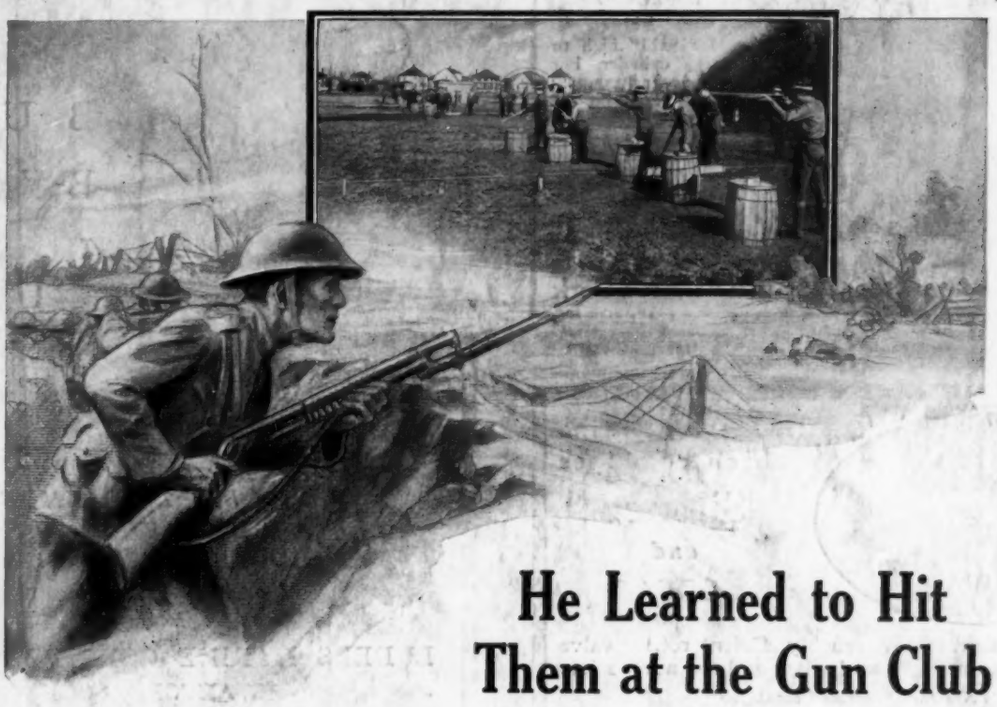

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